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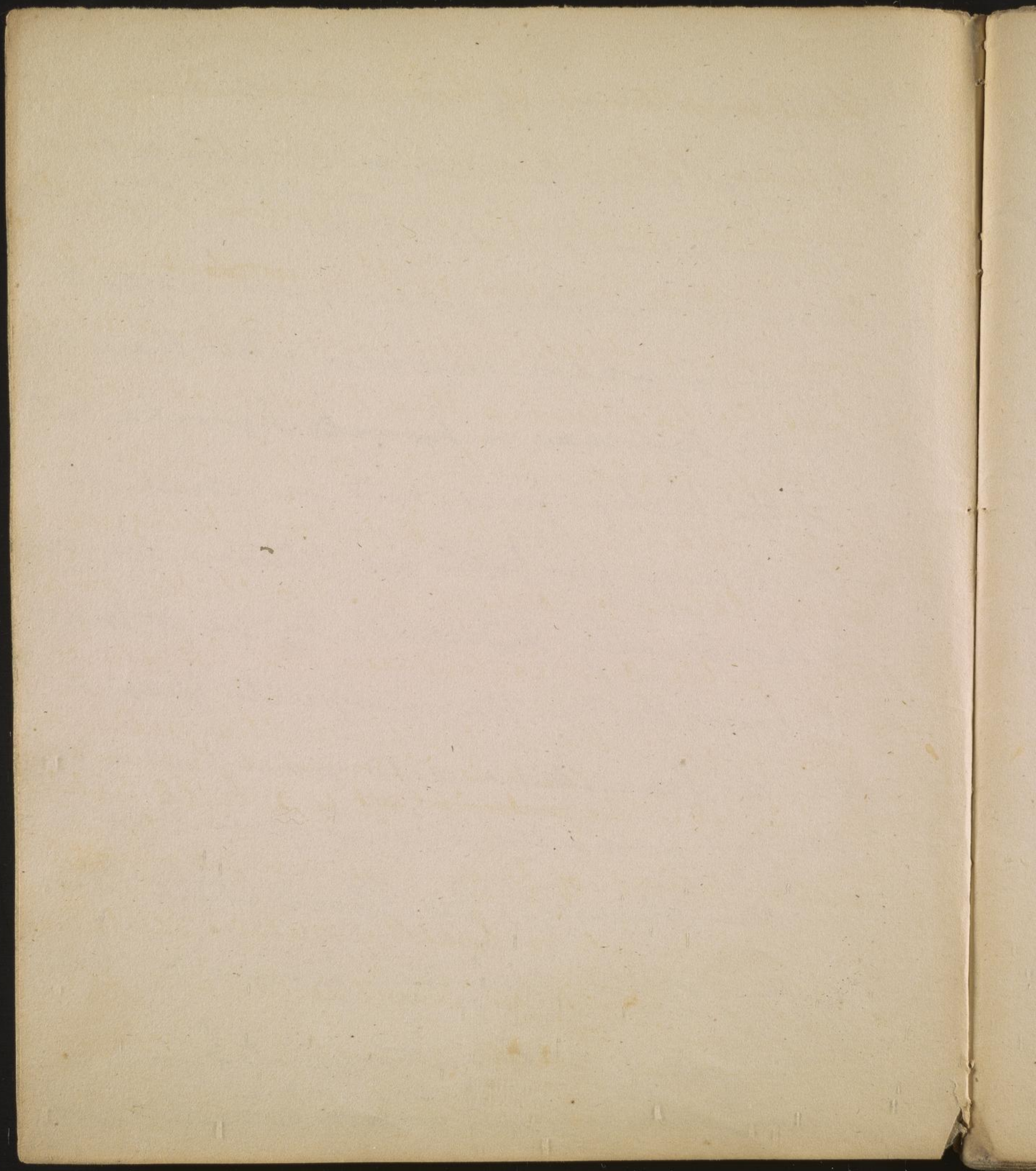
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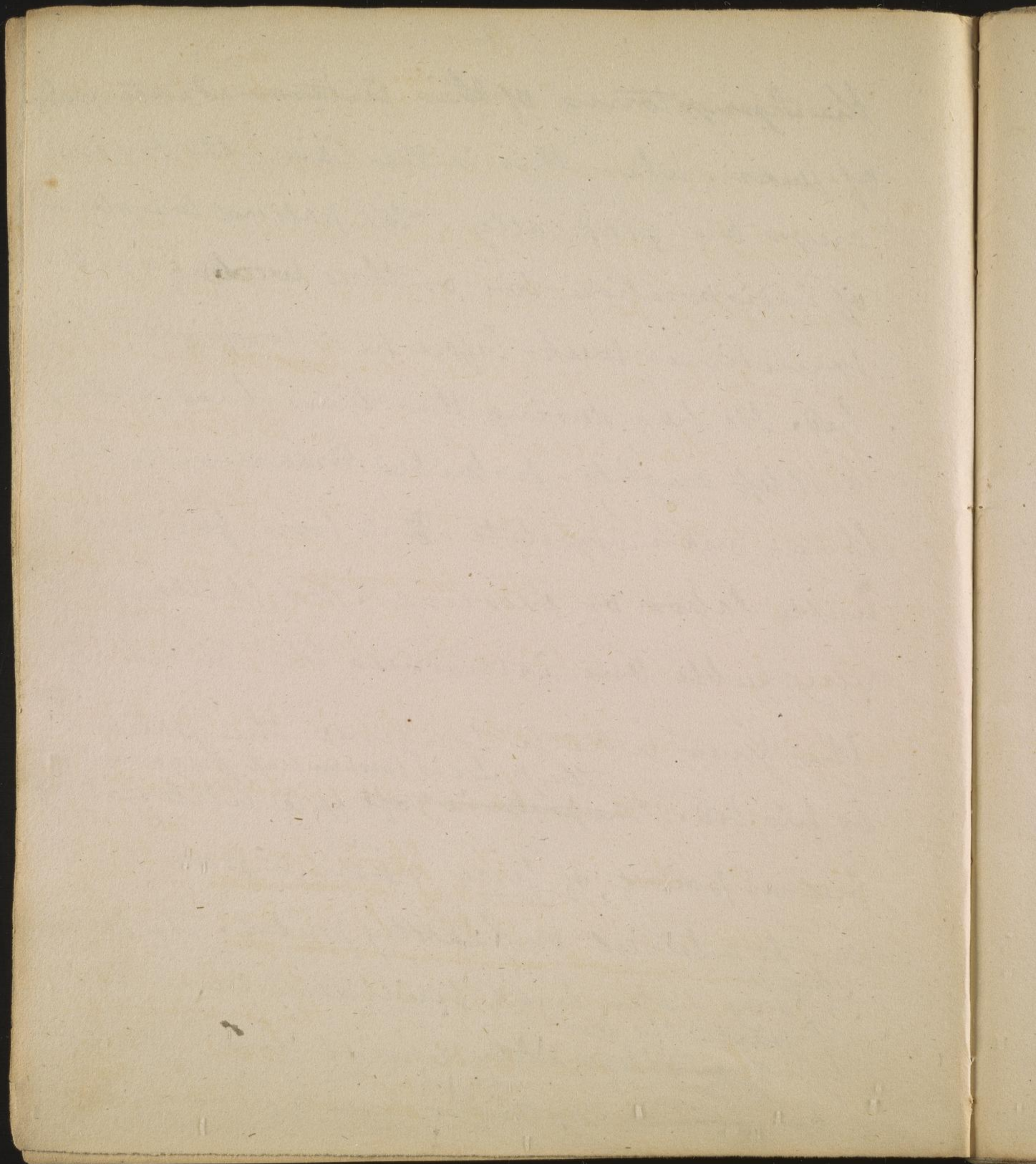
on the Cure of Fever.

55

1
We should proceed now in the order of
our syllabus to treat of the cure of fevers
accompanied with ^{morbid action} pulse, but there is
an intermediate grade of fever called the
Typhoid which partakes of the character
of the typhus or ~~typhoid~~ typhus, and
of the typhus fever, and in which the
indications for both are alternately or
occasionally indicated. We use it most
frequently in the puerperal fever &
in the scarlatina and now & then in
the jail fever - the bilious fever & even
in the pleurisy. In short there ~~are~~ ^{are}
none of the primary forms of fever
that do not sometimes assume it.
Sometimes a fever ~~comes on~~ ^{comes on} attacks with



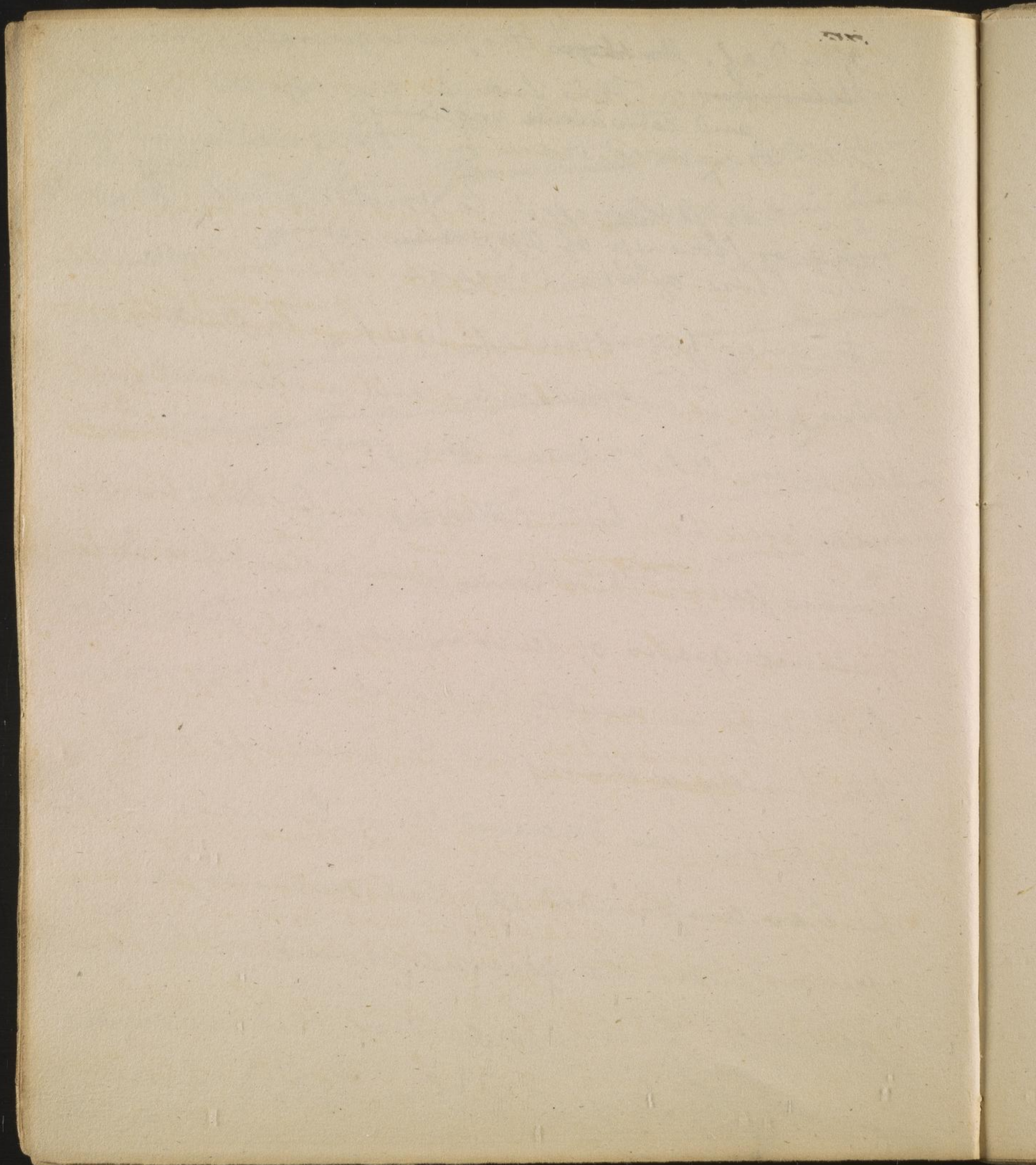
the symptoms of this intermediate grade
 of fever. When this is the case, the disease
 creeps on gradually. The patient complains
 of indisposition two or three ~~times~~ days &
 sometimes weeks before he is confined to his
 bed. He has during this time head ache,
 restless nights - disturbed dreams - a dry
 skin - weak appetite, & is soon fatigued
 with labor or exercise. No chills, or a
 very feeble one introduces the attack of
 the fever which confines the patient
 to his bed. ^{The pulse is somewhat frequent,}
~~The pulse is soft & a little jerking,~~
 but in point of force upon a par with
 a natural or healthy pulse. The skin
 is ^{hot &} dry - the head bewildered - and the
 tongue ^{partially or} alternately moist and dry. It
 sometimes continues for 20 or 30 days



without an interruption ^{and} with ob-
 -scure remissions with but little change
 in its symptoms except ascending, or
 descending in their force, but so little as
 scarcely to be perceptible. ~~But it~~ In this
 state it has received from Dr Butler the
 name of the slow nervous fever. But
 it more frequently ^{descends} ~~changes~~ into that
 state of fever which is called ^{by Dr Cullen} typhus, in
 which the ~~skin~~ pulse is weak & fre-
 -quent, with a barely perceptible febrile
 jerk in the it - the ~~skin~~ tongue, ^{and} ~~lastly~~
 mouth are dry, - the skin ^{furred & of a dark} dry & cool,
 color. ~~Even the teeth are covered with~~ ^{the}
 or more & then partially hot & moist.
 The bowels are costive, or loose - the
 patient is stupid - ^{or} ~~is~~ comatose, ~~etc~~

✓ This delirium has been called "delirium
vire" by Dr Cullen. Sometimes this delirium
assumes the symptoms of the chronic state
of madness, in which state it is called by Dr
Cullen "Typhomania". - There is a distinct
~~or form of depression~~ the lower
limbs are elevated to prevent the body de-
scending to the foot of the bed - glandular swellings,
Abscess and Gangrene generally form the last
stage of the disease.

Often deaf. ~~He~~^{His} jaw is generally fallen.
~~Delirious~~. His hands are affected with
tremors, ^{and convulsive motions,} and even his tongue trembles
in his attempt to protrude it. ^{There is a} Towards
the close of the disease which often con-
tinues for several weeks, the stools and
urine pass involuntarily, and a muttering
delirium takes place. The fever with these
symptoms has been called by Dr Butcher the low
nervous fever. There is a foundation for these
distinct grades of fever. You will find them
both very accurately described by Dr Butcher in
his history of the infantile remitting fever. Dr
Thurham has described them likewise, but
he has confounded the two grades or ^{low} states of
fever, under the general name of the nervous
fever. — There are several vulgar errors
upon the subject of these states of fever which



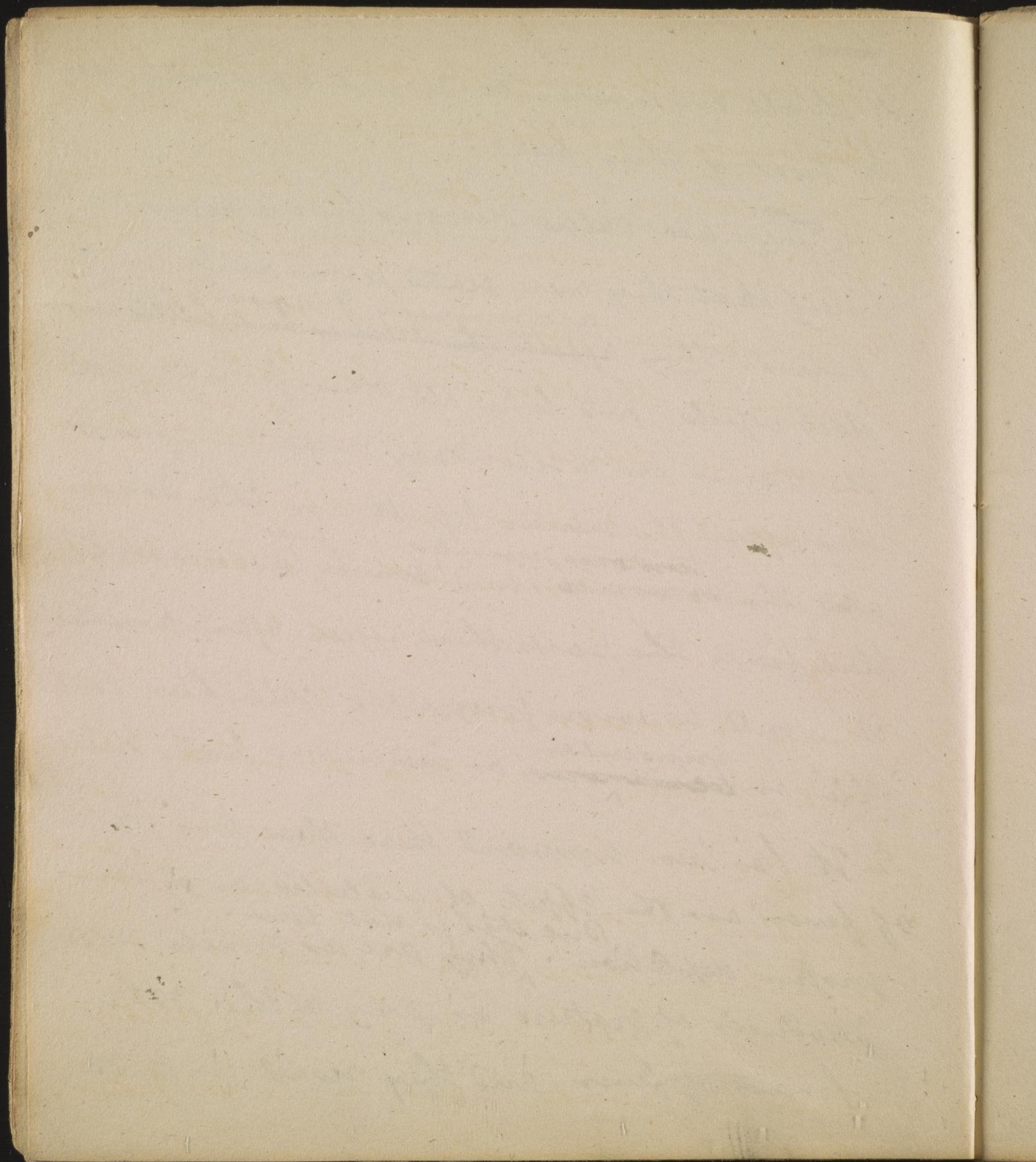
There

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I shall endeavour to correct before we proceed
to treat of this cure.

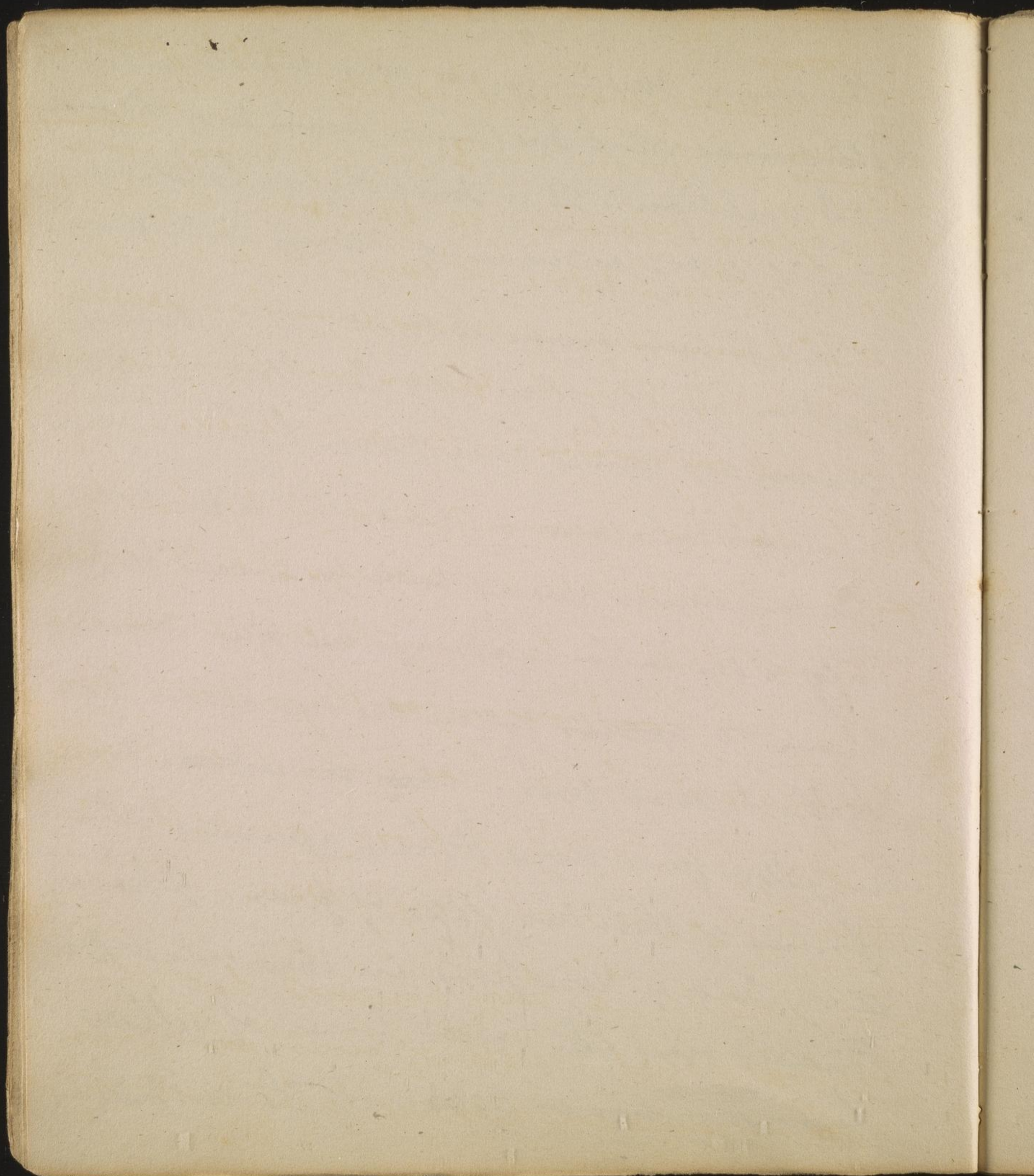
1 They are called nervous fevers from a
belief that they were seated primarily in the
nerves. They ^{are primary diseases of the} affect ~~the nerves but little more~~
blood vessels, and like all other fevers affect
the nerves in a secondary manner. ^{But} ~~from~~
they affect the nerves less than the brain
and the ~~tendons~~ ^{muscles}, and were ^{we} to designate
them from the parts they affect symptomatically
it would be more proper to call them Ceph-
-lic, or ^{muscular} ~~tendinous~~ or tendinous states of fever.

2 It has been supposed that these two states
of fever are the effects of neglected, or of im-
-proper depletion. ^{But this is not true.} They are as much the
products of nature as any of the other
forms of fever, and they resist with the



the same Obstinacy all our efforts to shorten
 its course that Obstinate fever do of the Shon:
 - but Duration. It is sometimes Epidemic,
 and it is the endemic of many countries.

3 It has been supposed that the typhoid &
 Typhus, or the slow and low states of fever
^{or Typho-}
~~origin~~ are derived only from human ^{or Typho-} emanations.
 - matabi exhalations, but this is an error;
 we sometimes observe both to precede the pluri-
 - city & the influenza, and we often observe
 them to ~~appear~~ follow the lynchus state
 of the bilious fever. ~~They sound the~~ even
 the yellow fever now & then assumes the
 forms of these two states of fever. I have
 a typhoid yellow fever in this city, & Dr
 Pinhard says the same form of yellow
 fever sometimes occurs in the West Indies.



Antepyrnal
~~Acute~~

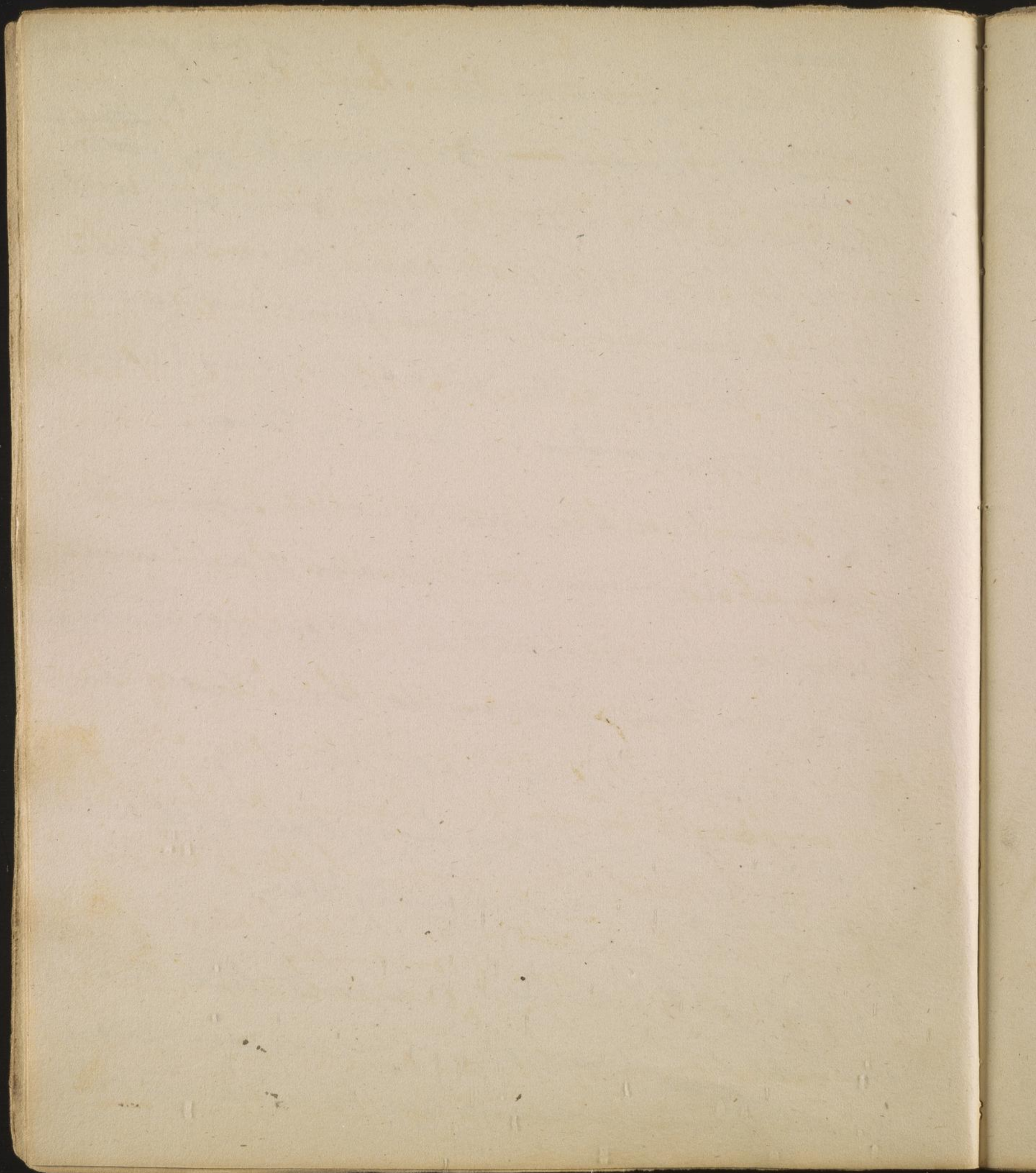
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of late years has

The bilious fever of this city which now ^{about}
~~run~~ its course in 3. 5. 7 & 9 days; ~~forty~~
~~between~~
the years 1760 and 1770 often ran on to the
20 & 30th Days before it came to a crisis.
This chronic form of bilious fever has appeared
in our city since the yellow fever has disappea-
red, but ~~by~~ ^{chiefly} in sporadic cases.

4 It has been supposed that the typhoid &
typhus states of fever are always of a chronic
nature. This is contrary to correct observa-
-tion. We ~~have~~ ^{often} ~~observed~~ ^{seen} them both ter-
-minate in life or death in 7. 9. 11. or 14
Days in the military hospitals of the United
States during the revolutionary war.

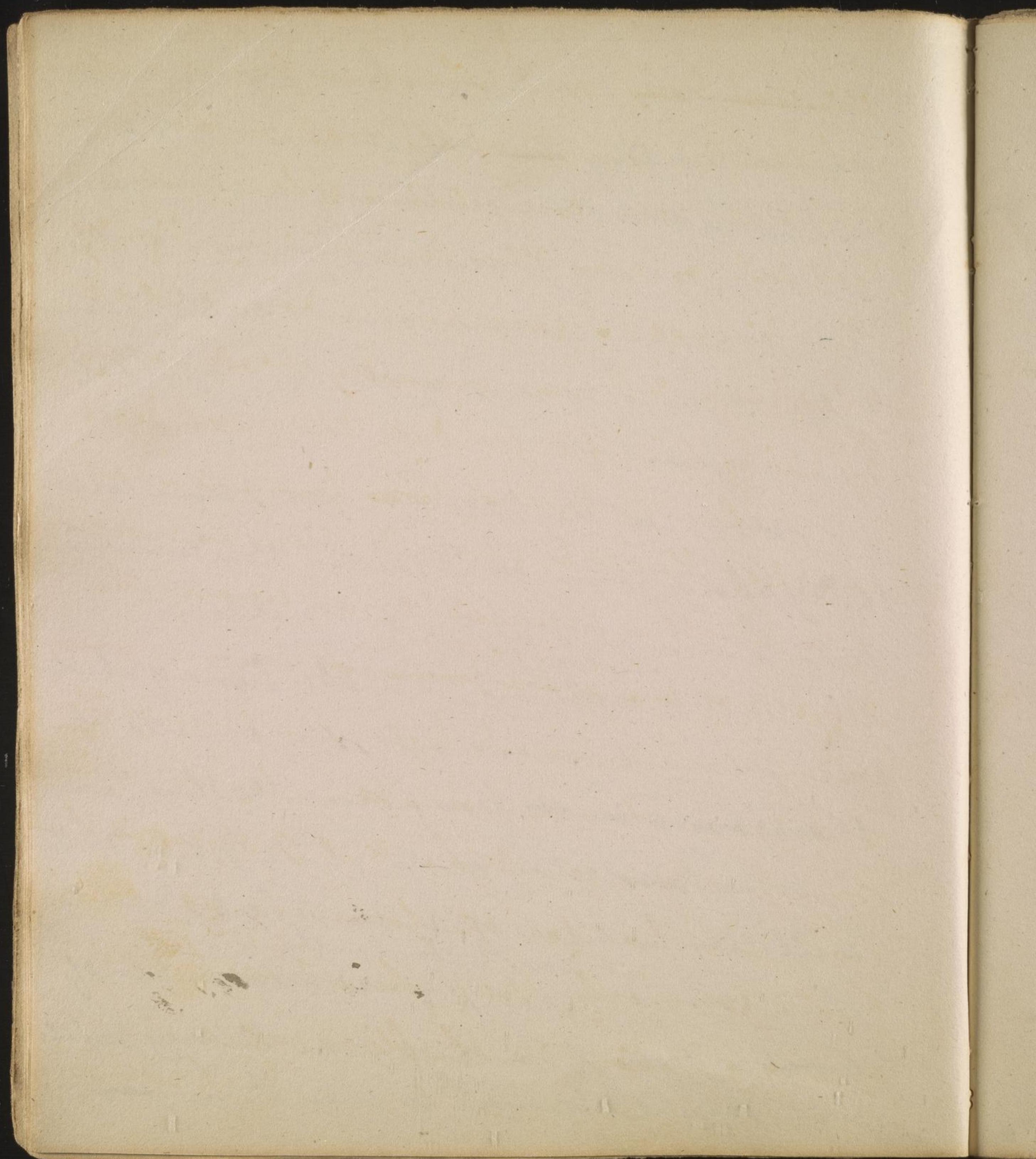
5 & lastly it has been supposed that the
typhoid & typhus states of fever, ~~and~~
~~and~~ ~~are~~ ~~to~~ ~~be~~ ~~used~~ ~~only~~
are to be used only



by stimulating remedies. But experience teaches us they ~~are~~ sometimes yield only to Bleeding and other depleting remedies even in their most protracted forms. Of this I shall mention some remarkable instances when I come to treat of the cure of these states of fever. -

~~Let state~~ The cure of what I have called the typhoid form ~~as~~ Dr Butters now removes fever comes first under our notice.

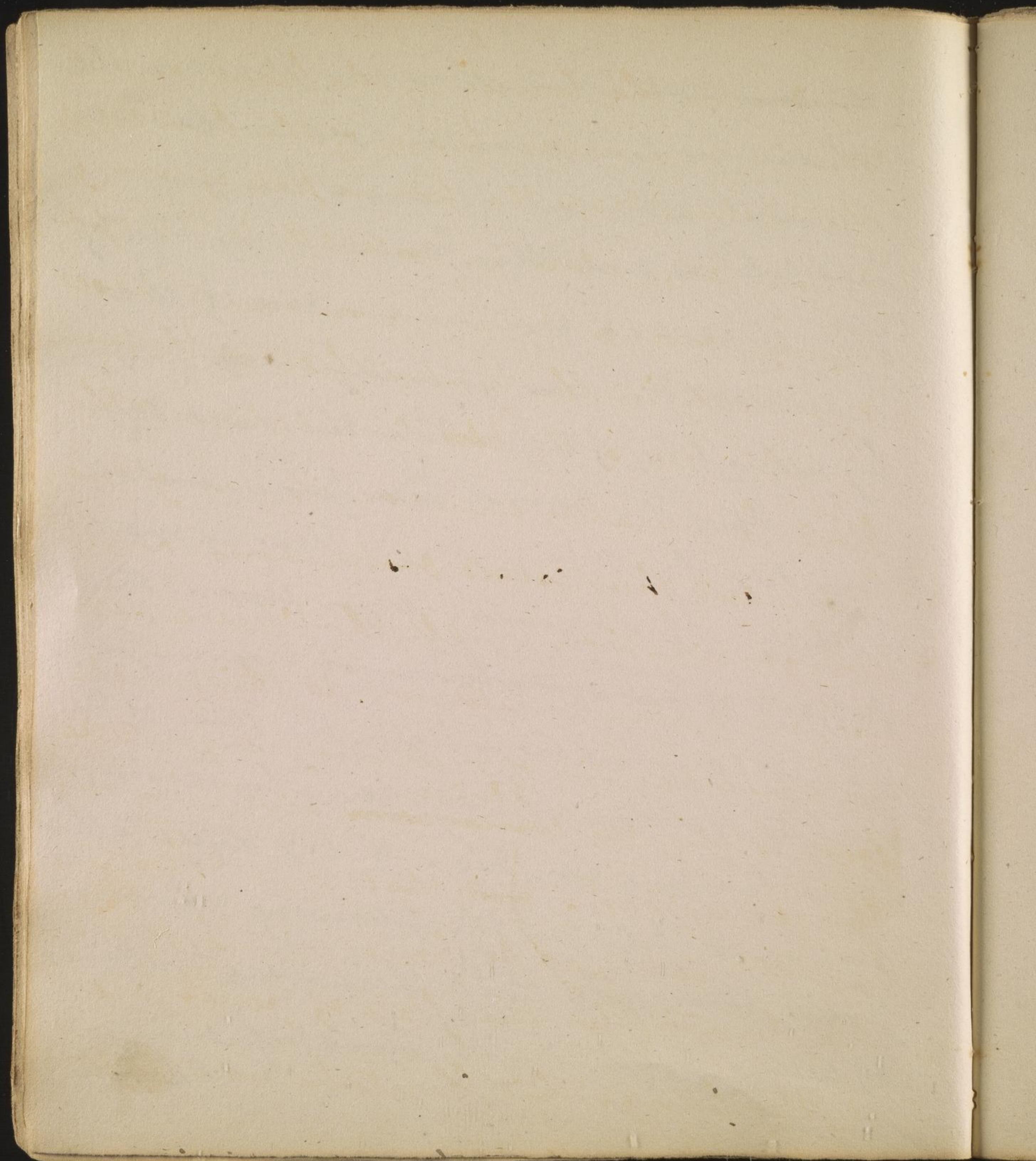
In its forming state (the signs of which were formerly mentioned) an emetic often ^{cures it in a} ~~throughout~~ ^{in a} few hours. Of this I had many satisfactory proofs while I attended the military hospitals of the United States during the revolutionary ^{war.} I ^{constantly} carried a number of emetic doses of Tartar emetic in my pocket with printed directions ^{now} to take them, ~~in~~



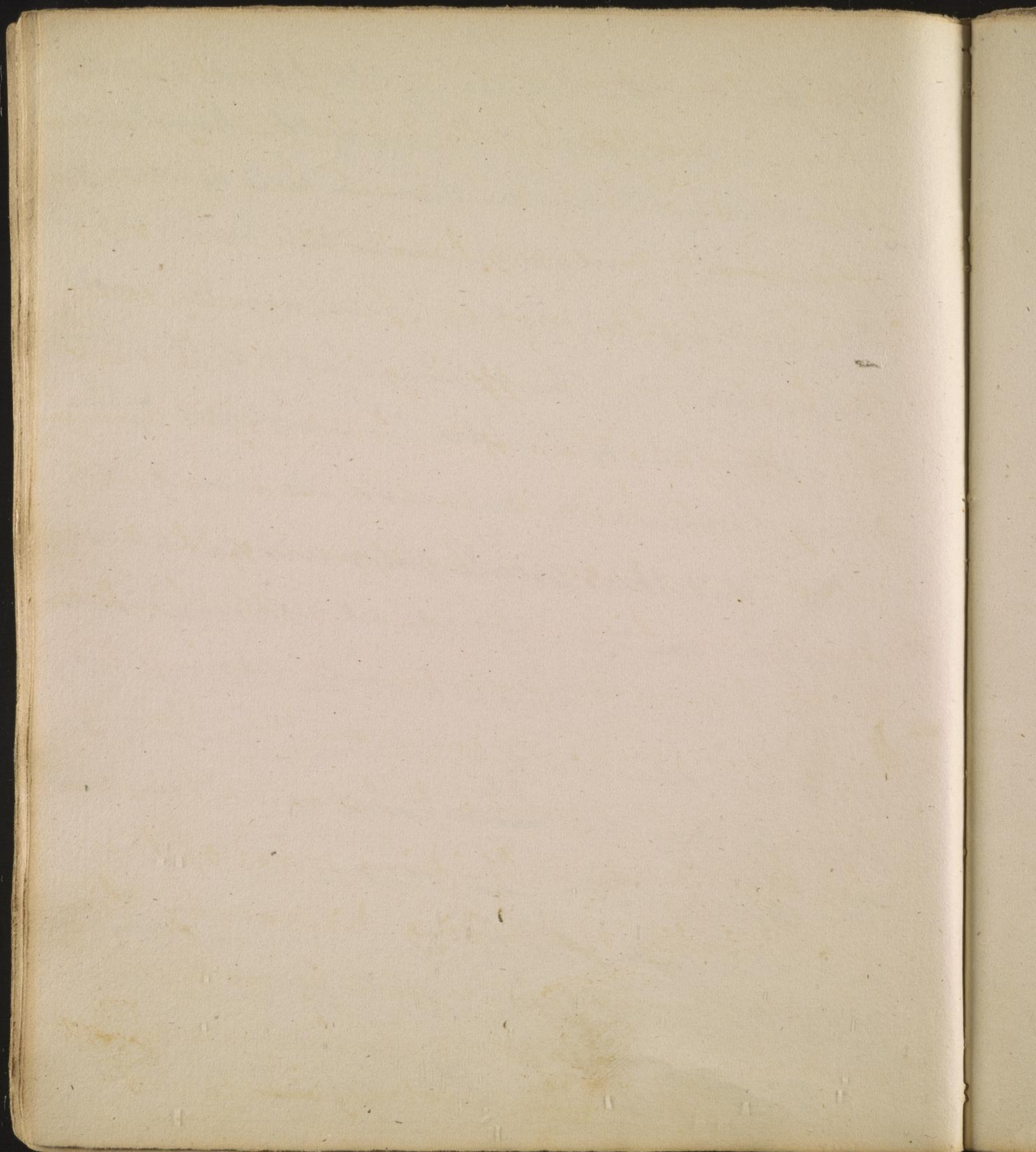
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~~divided doses~~, and whenever I met a soldier
whether in camp, on the road, or ~~the~~ in a
hospital, who complained of languor —
head ache or any other preliminary sign of
this disease, I gave him a dose of that
medicine, & I was generally made happy
by seeing him fit for duty the next day.

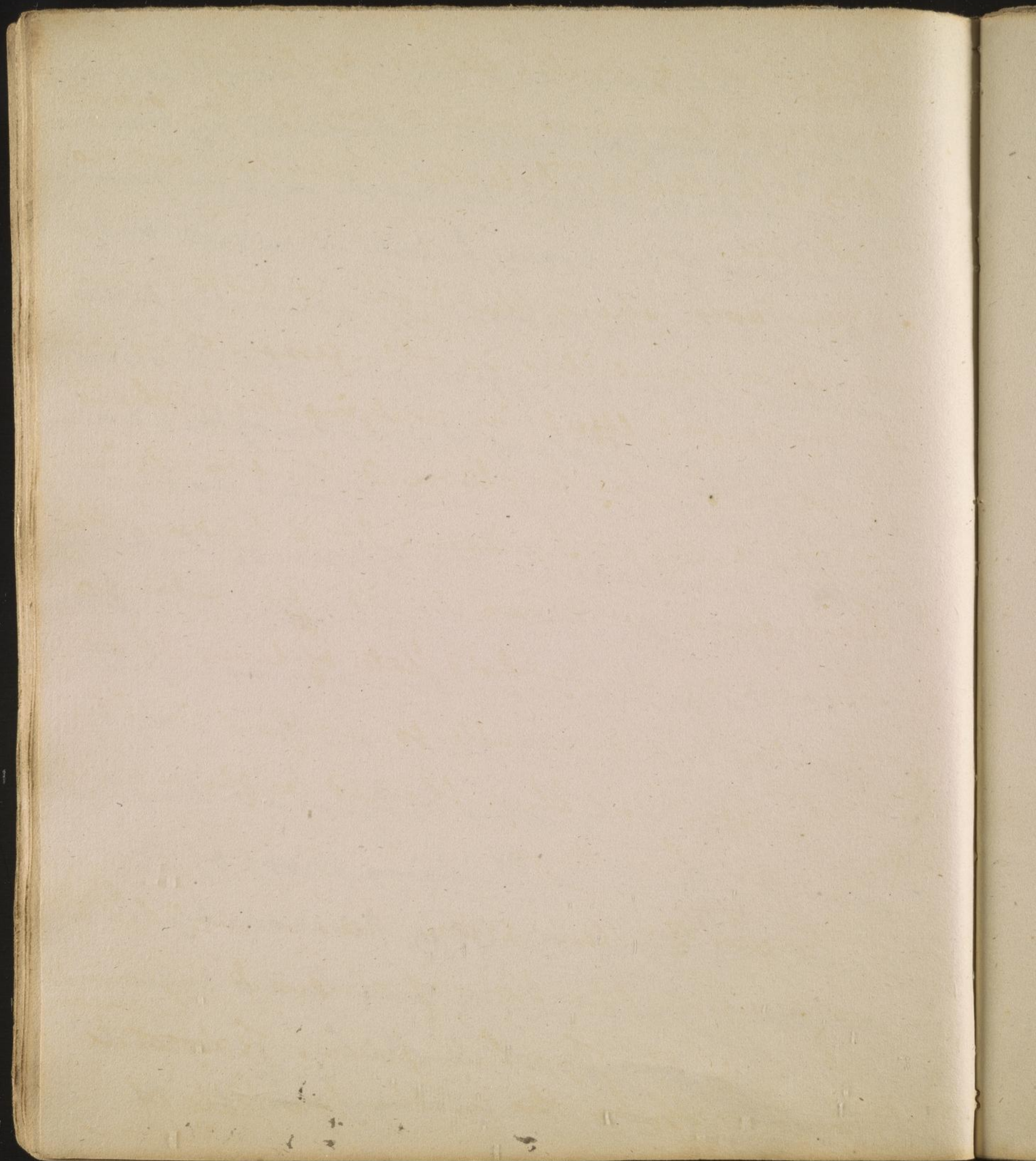
After the disease ~~was~~^{is} formed what
remedies should be given? There we meet
with another popular error upon the
subject of ~~one of the forms of~~^{what is called the} nervous fever.
— It is common to begin the cure of the
typhoid, or slow nervous fever by exhibiting
stimulating remedies. But I object to this
course, and that for the following reason.
I said formerly that there were two kinds
of wrong action in the blood vessels in
fevers,



- the one in the course of the blood, and the
 other in muscular fibres of the blood vessels
 themselves. Now the former state of wrong
 action takes place in ~~not~~ all cases of a
 highly morbid action, nor does it cease
 completely in the typhoid state of the fever.
 - In this state of the ~~the~~ circulation of the
 blood, stimulants increase its wrong direc-
 -tion, and thus create obstructions, and
 disorganization in all the viscera. Were
 we sure nature would not do this mischief
 without the aid of medicine, it would be
 best to obey the ^{advice} ~~command~~ given in our
 therapeutics, ~~and~~ that is "to do nothing"
 but this cannot be done with safety.
 The remedies for this state of fever are
 1) Bloodletting. This should be used with



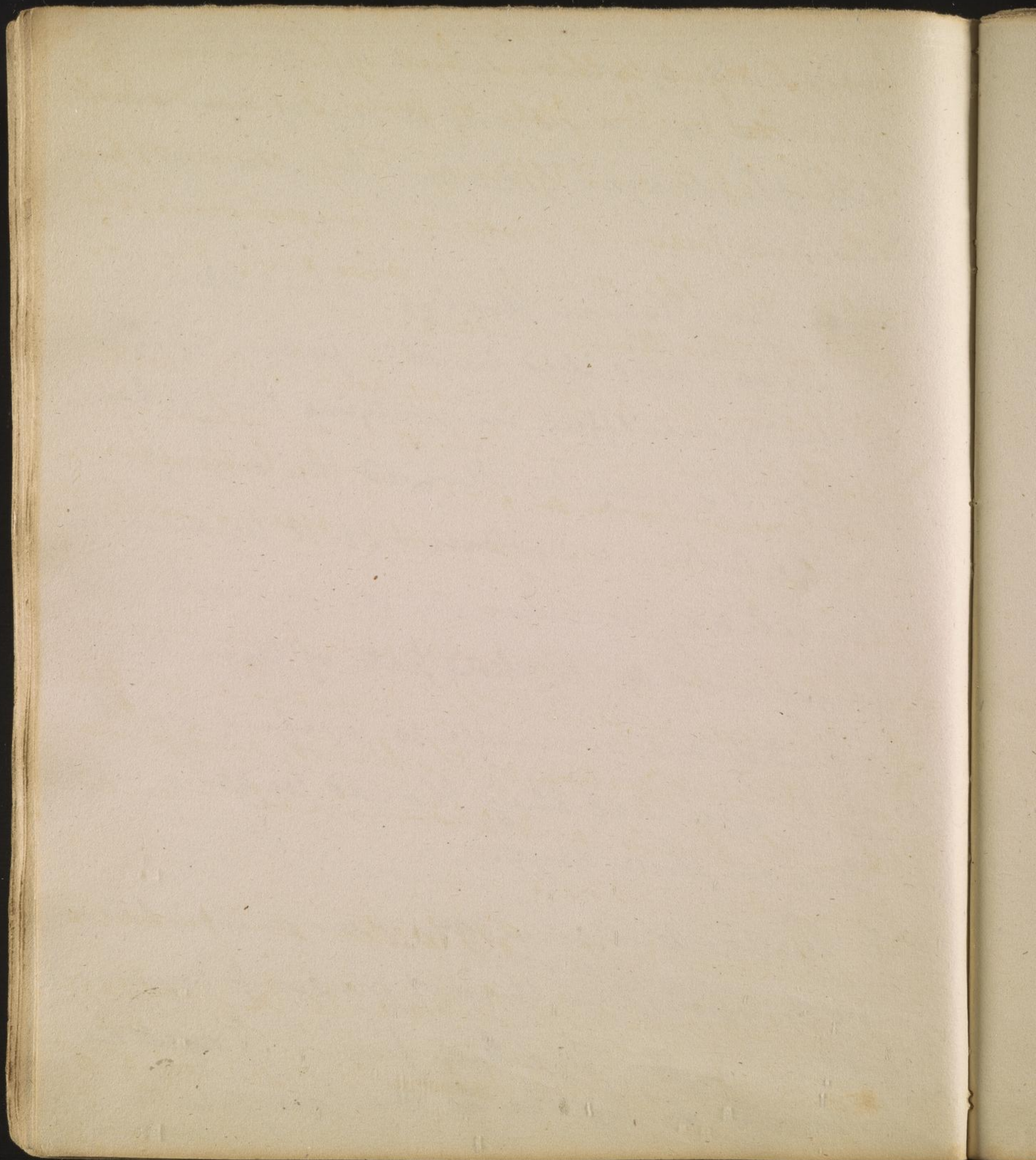
great caution, and in very small quantities. In ~~degraded~~ habits debilitated by previous ^{or low living} labor it should not be used, but in persons whose ~~habits~~ of contrary habits it is not only safe, but highly proper. It generally saves the brain from suffering in the course of the disease. Few of the Soldiers of the American Army could bear it, but it was used with great advantage in the Officers of the Army who from their intercourse with their Men in the hospitals were sometimes infected with this fever. It came on this class of patients with synocha & synuscula symptoms. See here first: a striking proof of the improbability of dividing diseases by their remote causes: There will be no order in medicine, nor safety to the human race till we renounce nosology ^{with} its



labyrinth of evils.¹² Let us say of it as the
ancient Romans used to say of their rival
city of Carthage. "Delenda - Delenda - est no-
=ologica!"

2 For Cases where bleeding is forbidden veni-
tals should be prescribed in this fever. They have
a wonderful effect in untying the typhoid
knot (if I may be allowed the expression)
in the Arterial System. It is because the
Scarlatina partakes in its character so
much of the typhoid state of fever that
emetics are generally so useful in it.
To be effectual they should be given every
two or three days.

3 Purgs. Dr Hamilton has published a
work upon the Uses of purges & recommends
them in the Typhus fever. ^{he means} To direct to
~~by the~~ in the low state of
nervous



fever, I object to them, but if he means - the typhoid ~~fever~~ or low state of fever, I have no doubt of their safety and efficacy. They carry off bile, and prevent visceral congestions. To be useful they should be given ~~once~~ every day, or two or three times a week.

4 Nitre, or the Antimonial powder is both safe & Useful in this state of fever when it is not derived from a form of the bilious fever, in which case it is generally offensive to the stomach.

5 Blisters or gentle warmants have been used in this state of fever. They keep up a continual determination of the fluids, and thus save the brain and Abdominal viscera from obstruction.

6 Ablution with Cold Water, and perhaps its affusion. The latter will be most safe when the typhoid ~~action~~ is descending to

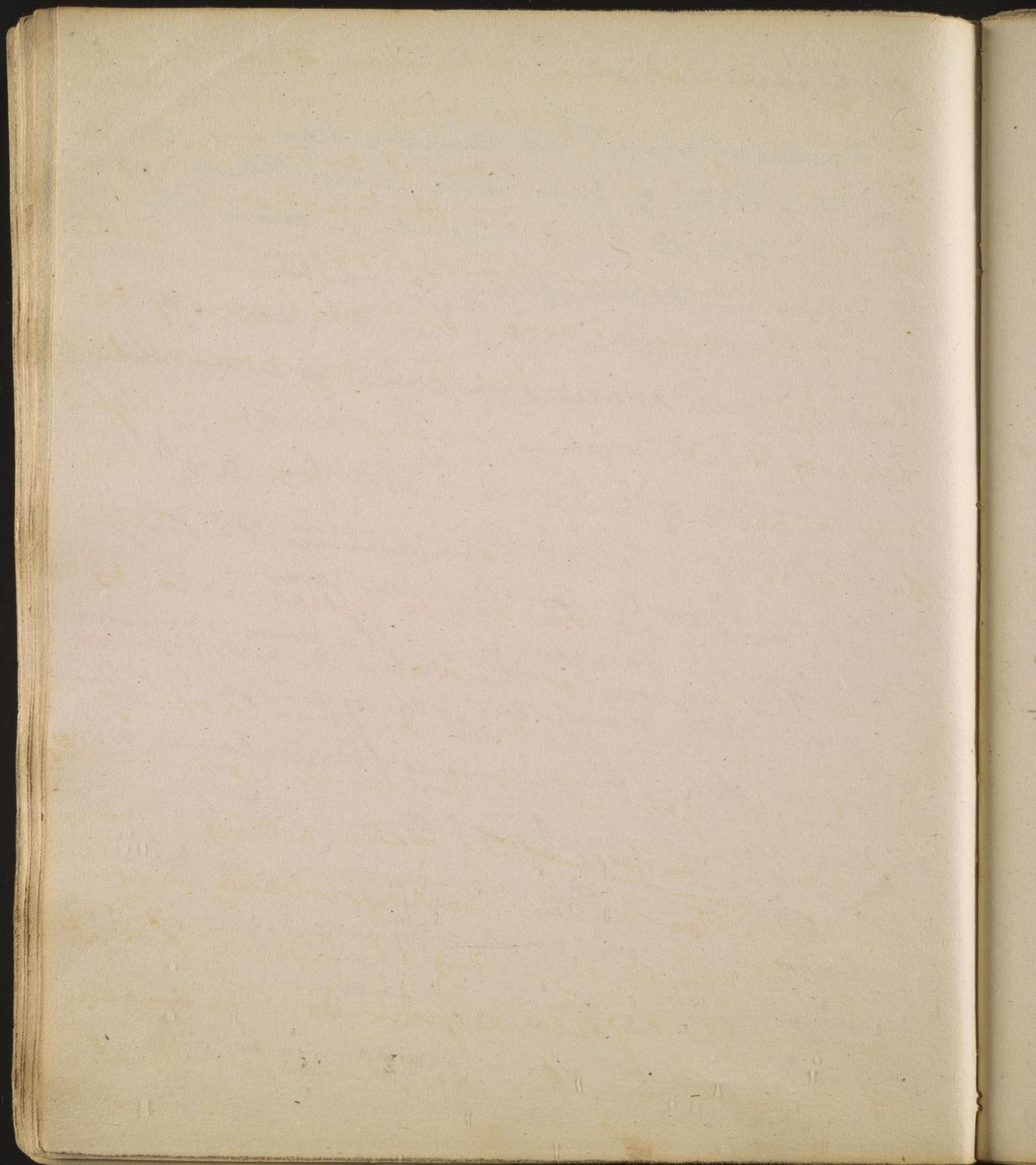
V & It is possible Dr Jackson, surrounded by
gestation might be employed with ad-
vantage in this fever. But I can say
nothing in its favor from my own ex-
perience.

the typhus action.

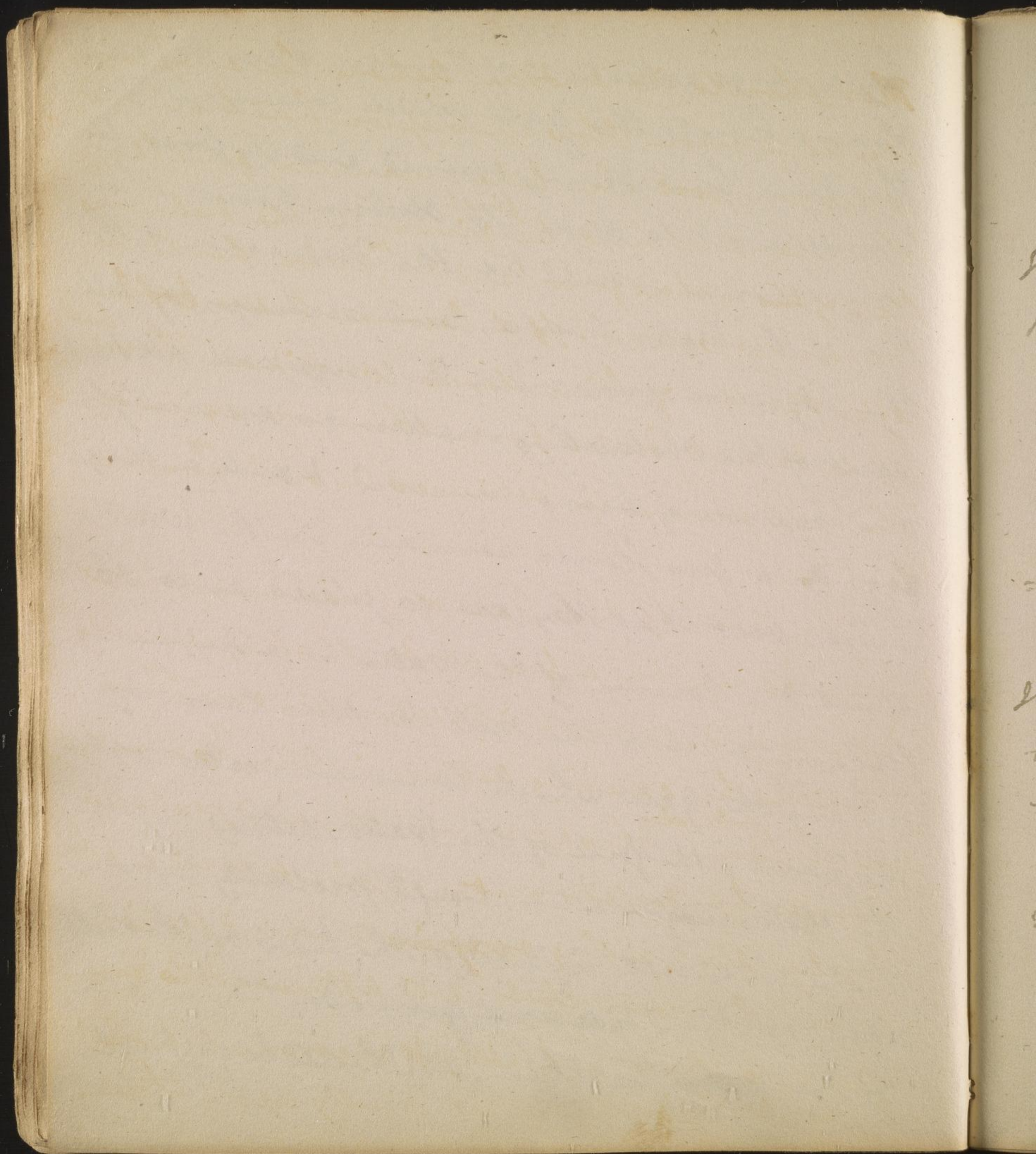
of a salivation. This remedy has succeeded in this state of fever when all others have been employed to no purpose. It ~~is~~ is difficult to determine the measure to the salivary glands, and I am sorry to add I have much often failed, than succeeded in exciting a salivation by it. ✓

These Remedies should be continued till the typhoid action of the pulse is nearly subdued. I say nearly subdued, for there are cases in which there is more danger from the fever lessening, than from an exhausted state of the system, than from using stimulants a day or two before the typhoid action in the arterial system is completely worn down, or descending to the typhus state with a small degree of a wrong direction in the circulation of the blood.

I shall illustrate my meaning by a simile. Suppose a mill race to be suddenly obstructed



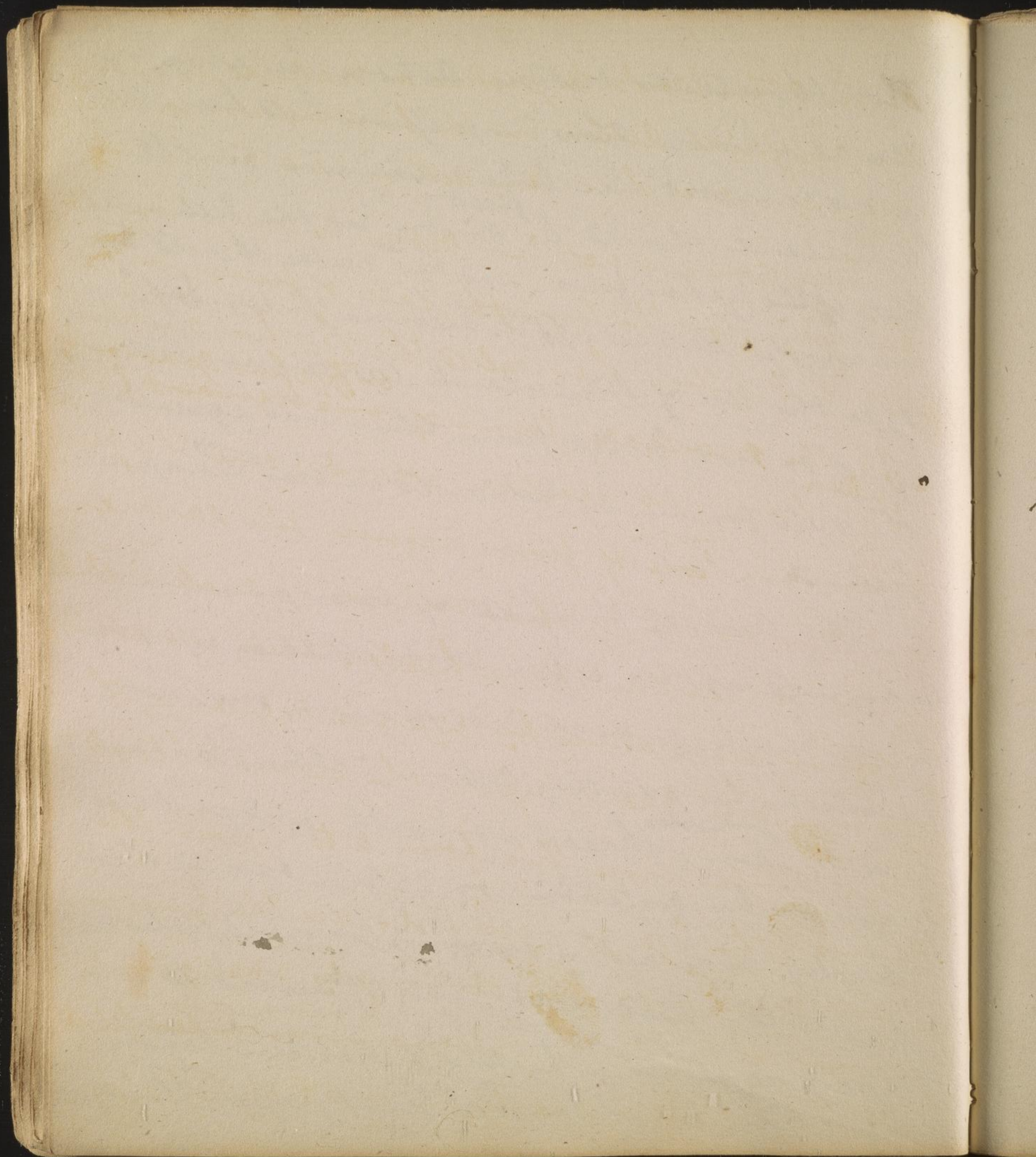
by a large Collection of timber, & earth, and
 stones. Should the gate which conveys water to
 this dam be suddenly opened, and its force be
 insufficient to open its obstructions, the
 consequences would be the Destruction of the
 sides of the water course, and perhaps of all
 the adjacent grounds; But suppose all such
 parts of the obstructing matters as are in sight,
 and capable of being removed, & only a large
 log, or a few stones remain in the water
 course, but that they are so placed as to ob-
 struct the course of the water in a sufficient
 stream to turn the mill. In this case, by
 opening the gate which communicates with
 the dam, the force of the water, acting upon
 the obstructing matters, would probably remove
 them without injuring the sides of the mill
 race, or the adjacent grounds. The impulsion
 of the water in this case should be gradual,



Nor should its sudden action be employed, until a more slow impression has been tried to no purpose. In like manner, gentle stimulants should be ^{first} given in the declining state of the typhoid fever, and the pulse should be narrowly watched. If it become fuller & slower after the use of Stimulants, continue them, but if it do not, desist from their use agreeably to the rule formerly delivered in our Therapeutics.

-icks.

The cure of this state of fever may be summed up in a few words, that is, agreeably to the second general indication in our Therapeutics by exciting action in the Stomach - bowels, ~~intestines~~ ^{throat & mouth}, and perhaps muscles by gestation, or passive exercise & thereby abstracting ~~excess~~ morbid action from the blood vessels, and afterwards to impart to them a healthy & vigorous action by medicines which act directly upon them,

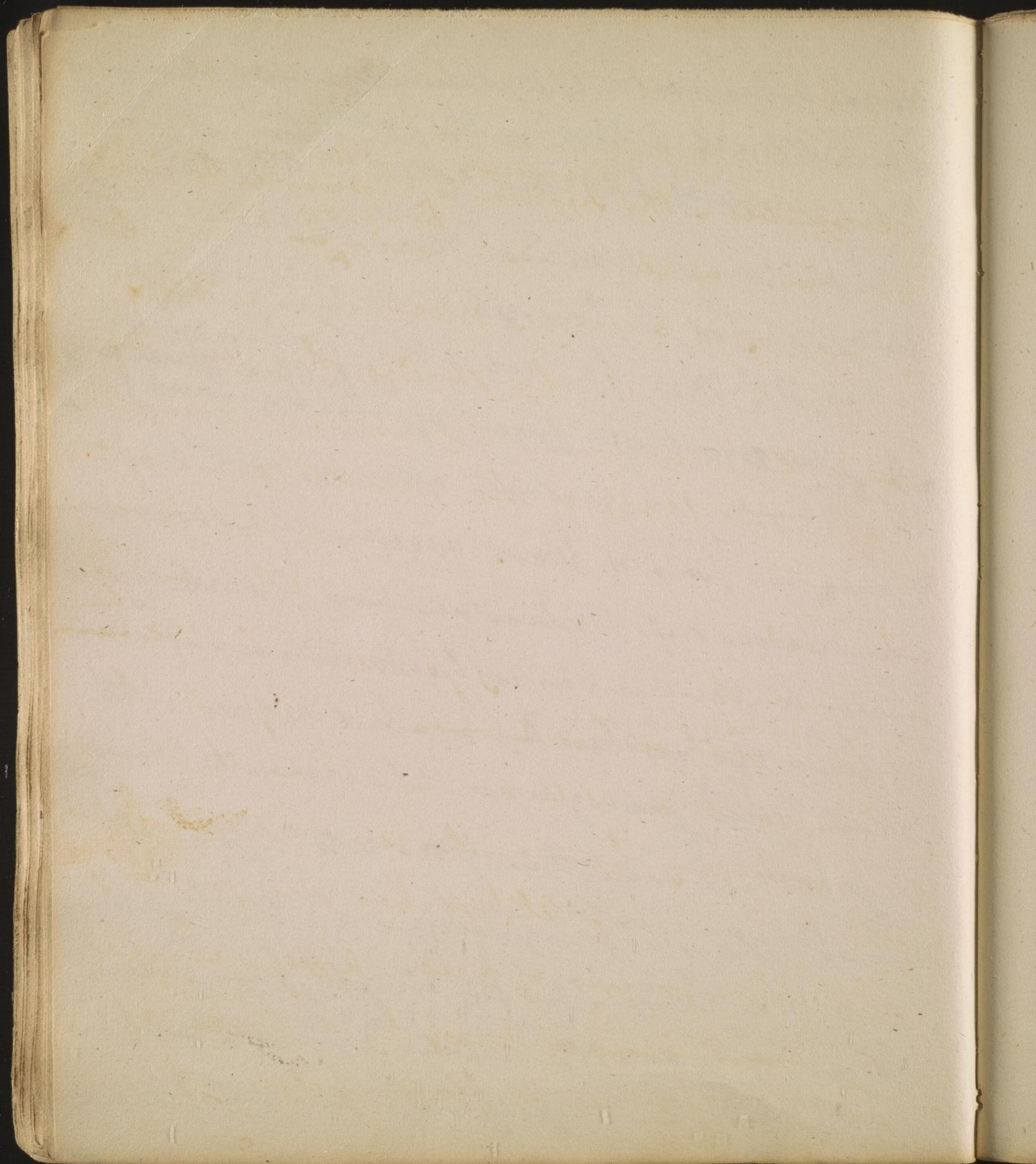


or in other words to produce a natural, instead of an artificial action in the blood vessels, for they are capable of but one action at a time.

We come next in order to mention the remedies for the low ~~state~~ state of fever, or for what Dr. Cullen has called the Typhus mitior.

As the prostrate form of ^{or Typhus} ~~malignant~~ ^{gravior} fever, in which no reaction attends, and the gangrenous ^{form} ~~state~~ of fever require the same remedies as the typhus mitior, I shall include them under the same heads. These two forms of fever are produced by different degrees of the same force acting upon the nerves & blood vessels. The more this force acts upon the

nerves, the less gangrenous are the symptoms, and vice versa. In the simply, ^{prostrate or} malignant form of fever, the nervous ^{muscular} ~~fibrous~~ fibres of the body are nearly in a paralytic state,



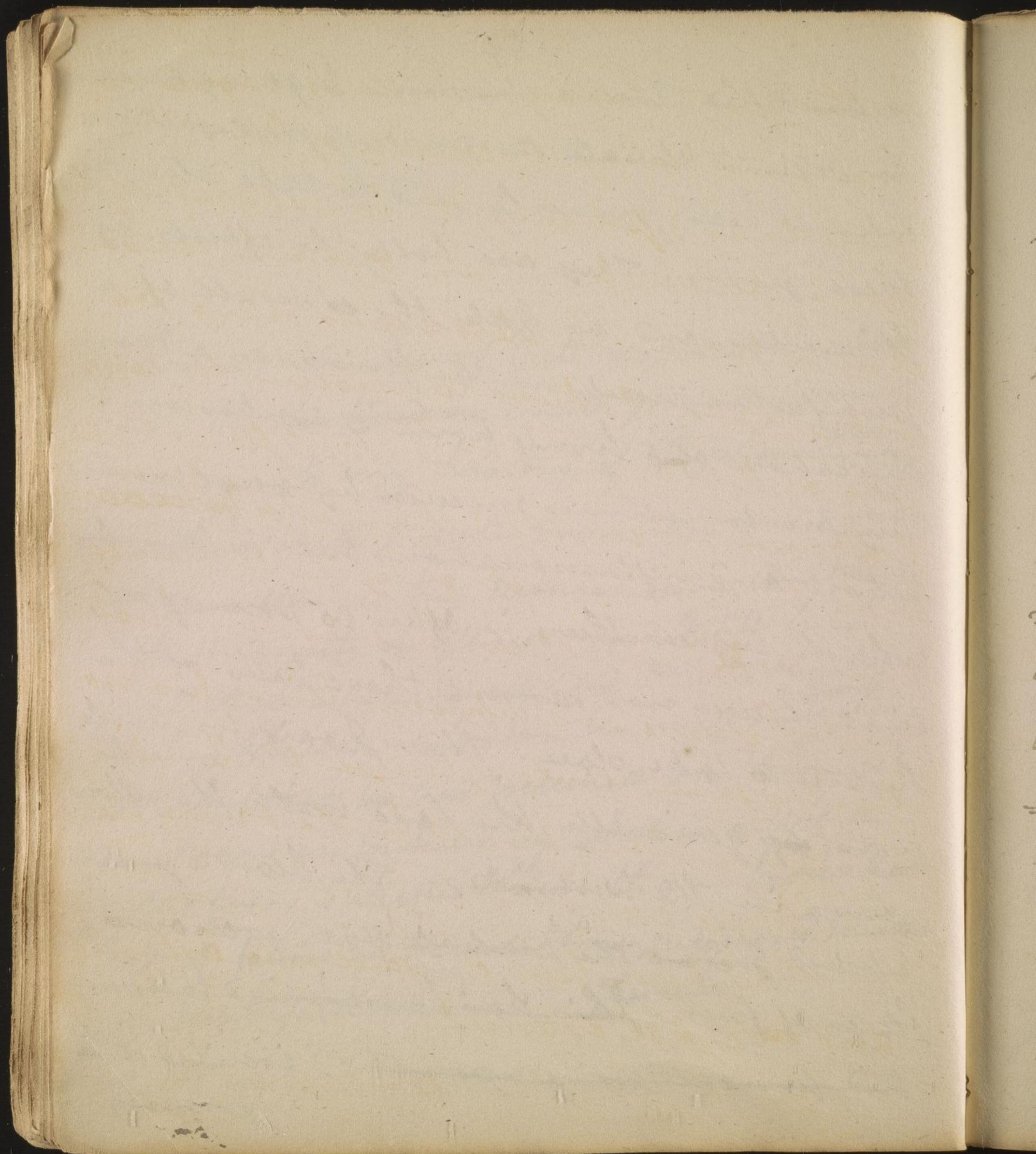
the skin is cool - the pulse is feeble, often na-
 -tural as to frequency, & sometimes scarcely
 perceptible - the system is ^{exquisitely insensible, or} insensible to im-
 -pressions of all kinds - pain ^{is acute, or} ~~is~~ absent, ^{and} ~~but~~
 instead of it, a morbid pleasure is felt which
 patients express, by saying "they feel too
~~so~~ well." Sometimes the muscles are exempted
 from the stroke of the remote cause of the
 fever, in which case patients rise from
 their beds, dress themselves and attempt to
 resume their ordinary pursuits in life. ^{when} ~~with~~
 the remote cause of the ~~many of these~~ fever affects the
 blood vessels as well as the nerves, the disease
 is marked by hemorrhages, petechiae, bubos
 and carbuncles. Alibert has very properly
 called these forms of fever ~~Adynamie~~ ^{kind}
 They ^{are occasioned} ~~are occasioned~~ of palsy by a ~~grade~~ ^{kind} of
 palsy in the nerves & blood vessels. - I have

V For a number of facts opposed to putrefac-
-tion in ~~the blood~~ in malignant fever of
refer you to my history of ~~the~~ ^{fever.} phenomena.
To those facts I shall mention one more.

Dr Hamilton in his lectures upon Anatomy
in the University of Glasgow used to tell his
pupil that while he attended Dr Wanklyn's
dissecting theatre in London he uniformly ^{observed} those
dead bodies that he had petechiae on them w:
you know are produced by what is called a
putrid fever, putrefied ~~the~~ ^{less} than bodies that
died of fever without those supposed marks
of putrefaction.

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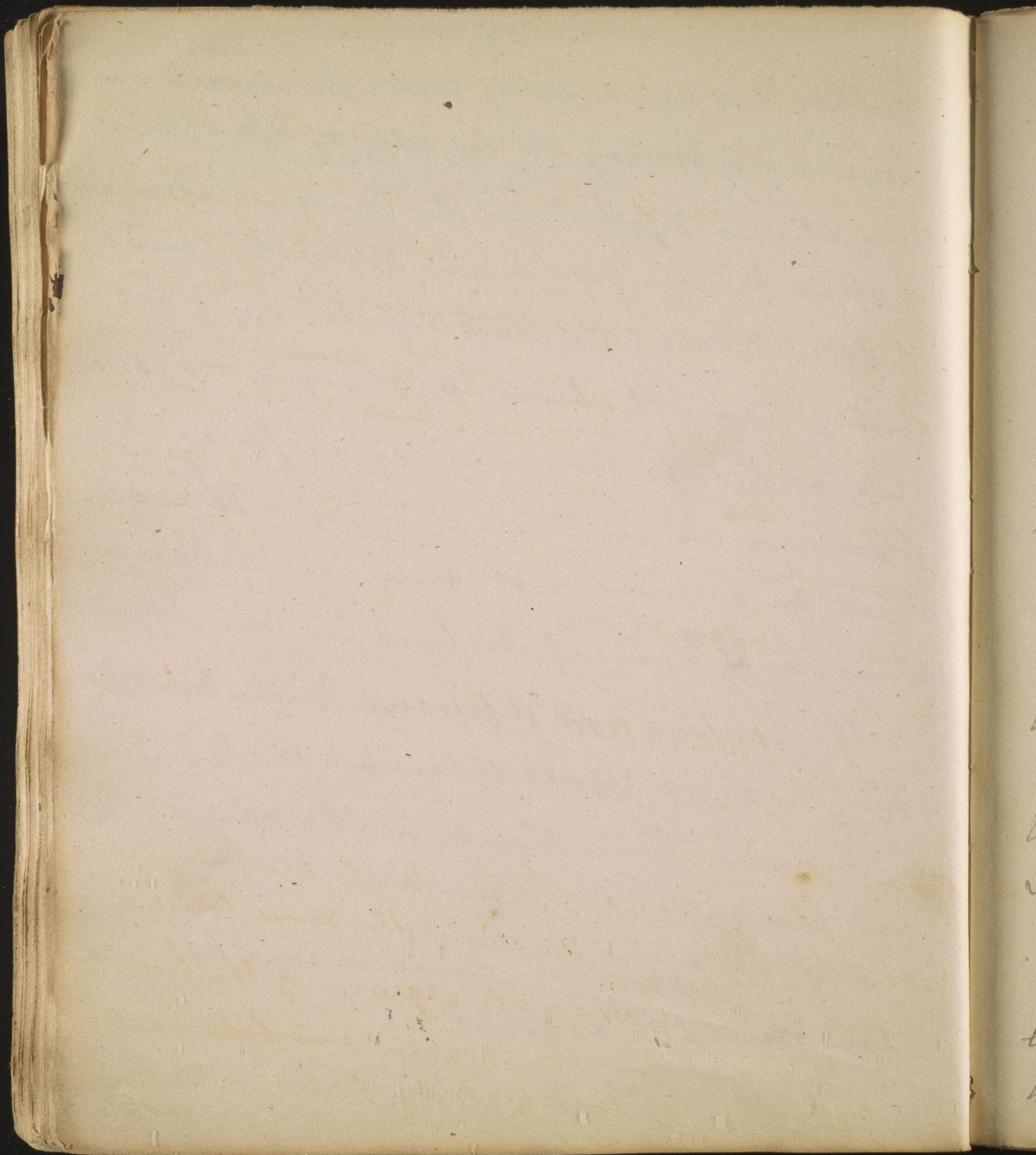
preferred the terms prostrate & gangrenous,
 in order to obviate the error of putrefaction
 which was formerly said to take place in
 these cases. They are both the effects of
 stimulus, and as little the result of a
 putrefactive process in the fluids, as a mor-
 tification of a limb from a contusion!
 They are sometimes preceded by great morbid
 action and inflammation, but the stimulus
 which induces them is often so powerful,
 that it does not permit those states of the
 system to take place. This I said formerly
 was ~~of~~ generally the case with the yellow
 fever in the West Indies. The blood is generally
 discolored ~~for~~ ⁱⁿ the prostrate & gangrenous
 states of fever. ~~This has been ascribed to a put-~~
~~red ferment acting upon it.~~ I ascribed it to
 formerly



to the blood vessels acting with ^{much} ~~so much~~ ~~on~~
 force as to destroy its capacity of life. It is
 sometimes dissolved in the lowest grade of the
 typhus fever - from an opposite cause,
 that is from the blood vessels acting too
 fully upon the blood to preserve its capa-
 -city of life, or its animalized state. Thus
 blood ~~and~~ we see the extremes of ^{fever} ~~disease~~
 met in a point not only in the vessels,
 muscles & blood vessels, but in the blood
 itself. Excessive and deficient Stimulus pro-
 -duce the same effects, of course the Remedies
 to remove them should be the same. These
 are Stimulants.

They have been divided into External
 and ~~Internal~~ external.

The internal Stimulants may be
 divided

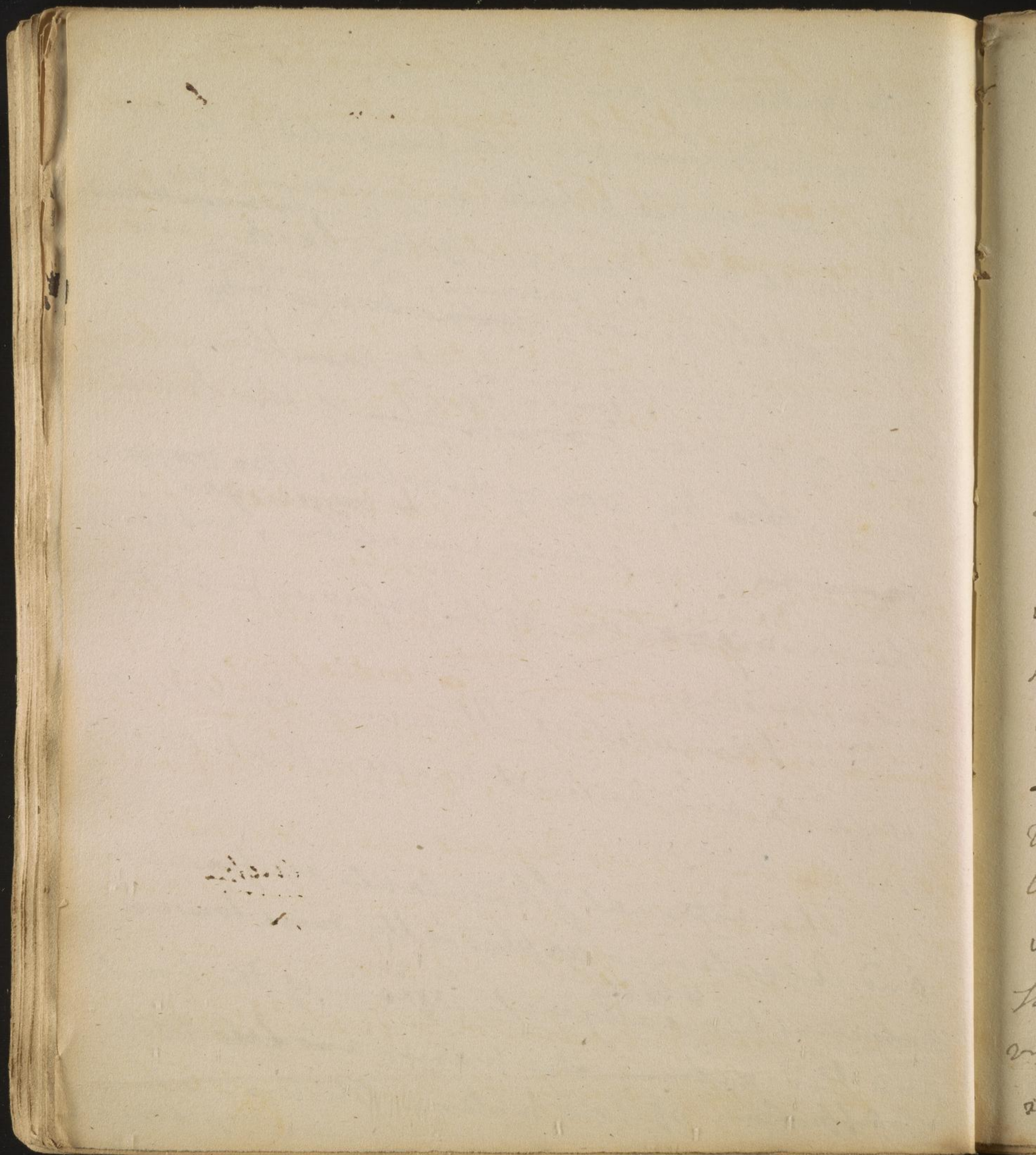


into medicines and Aliments.

The medicines are, all fermented & distilled
 liquors, volatile alkali, ^{bitterness of all kinds} camphyr, essential oils, ^{and mercury, administered} Opium, Bark - ^{not}
 bitters of all kinds, ^{applied to the body} only this the medium of the ^{lower} stomach,
 but of the nose & ^{and} bowels also of the lower
 bowels ^{by way of Glysters, also oxygen} ^{& oxygen gas}
 gas ^{and} pure Atmospheric Air, and lastly
 the invigoration of the passions & the
 understanding.

The Stimulating Aliments, include the
 vegetable and animal matters that are
 used in diet.

The external Stimulants are fomentations
 and Cataplasms applied to the ^{to the} lower
 extremities, external region of the bowels
 and stomach - the warm and cold bath,
 - affusion of cold water - Blisters - Cataplasms



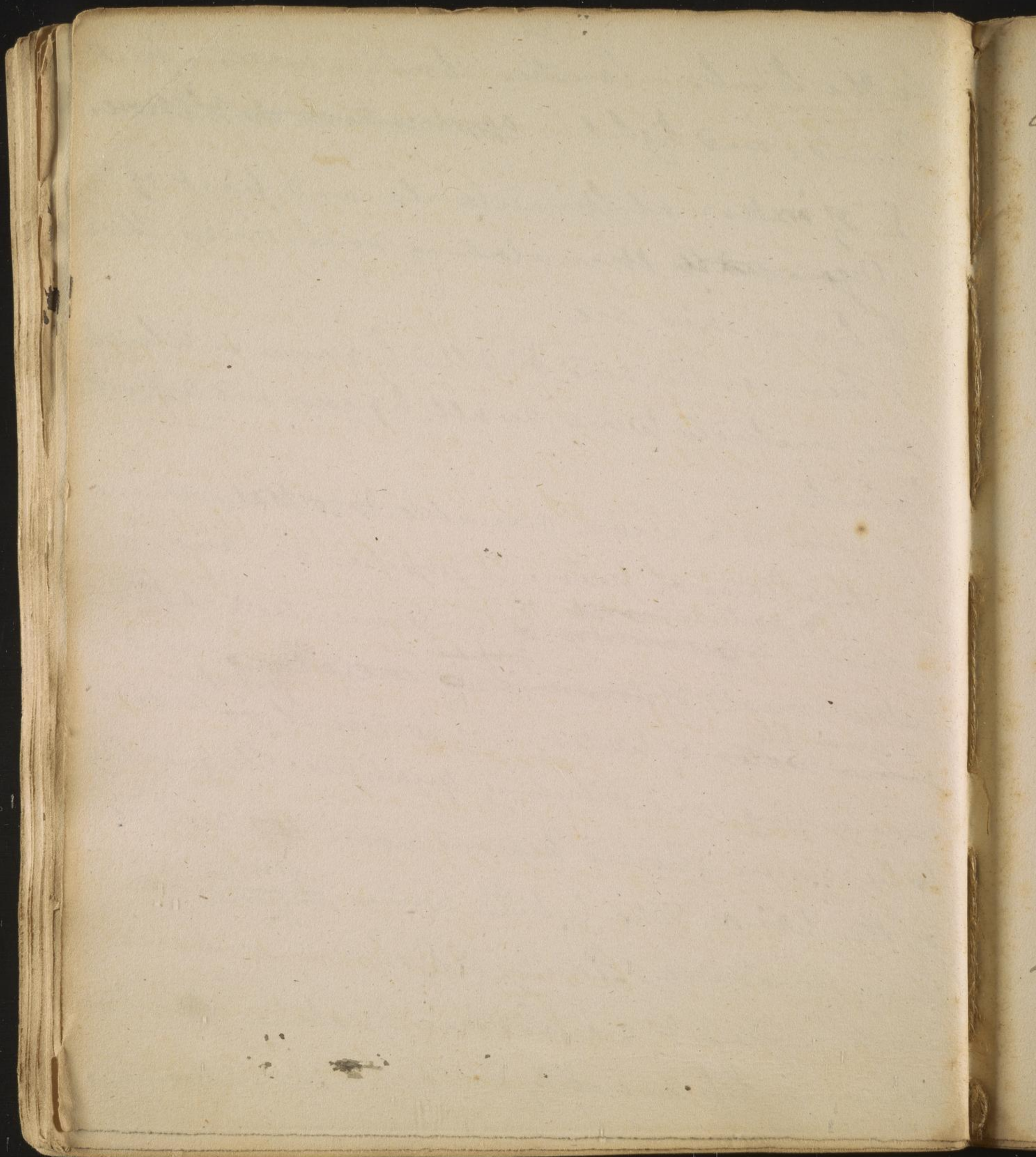
to the limbs - Caustics - boiling water - friction,
 sound, and light. ~~applications to the nose.~~

I of external Stimulants. and first of
~~external~~ Stimulating medicines. These

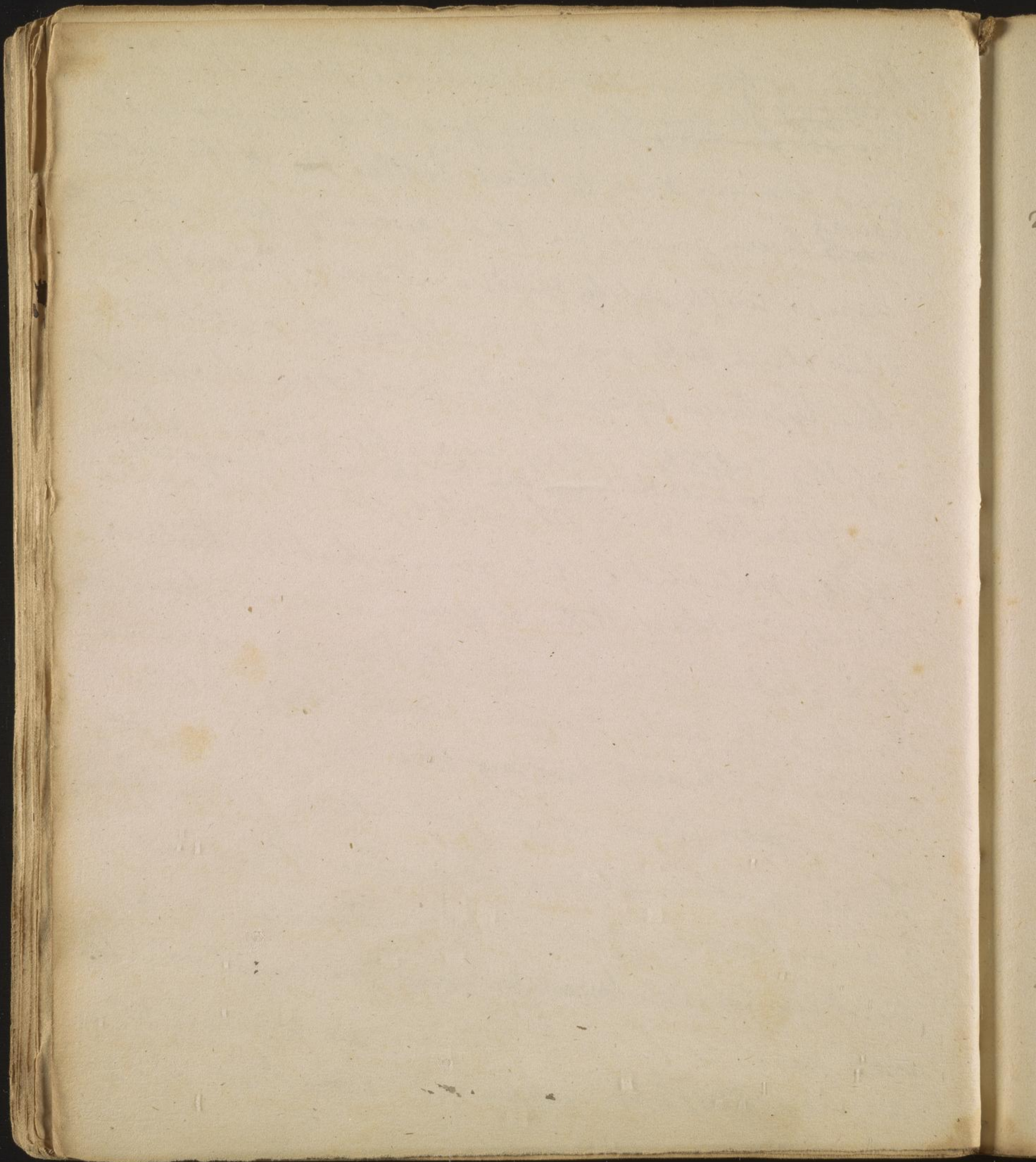
I have said are

1. Fermented and distilled liquors in which
 are included wine, malt liquor and Ardent
 Spirits.

Wine is a most agreeable ~~cordial~~ medicine
 in these states of fever. It possesses an acid, a
 portion ~~some~~ of unfermented matter
 Spirit - ~~quantity~~ ^{possesses} of unfermented matter
 called must; of course it ^{possesses} and
 a quantity of water, - of course it ^{is} cordial,
 nourishing, and diluting qualities. The quantity
 to be given should depend upon the nature
 of the wine. The white wines ^{such} as
 Chery, Madeira, Secilly & Lisbon contain
 most cordial & nutritious qualities, for which
 reason a less quantity of them should be taken



The sword of medicine bears
 than of the red wines such as port & claret. ~~The~~
~~testimony of a quart to two quarts of the former~~
~~the former~~ and from one to three bottles ~~of~~ of the latter
 having been given in the course of four & twenty
 hours with safety & advantage. I have prescri-
 -bed them both nearly in those quantities in
 the typhus fever of the military hospitals
 of the U. States. They may be given alone,
 or with the ~~holding off~~ ^{with} in the form of wine whey
 or diluted with ~~at~~ water, at the pleasure
 of the patient. It is remarkable that pa-
 -tients in these States of fever who in four or
 five glasses of wine would have intoxicated
 in health, will drink two or three bottles in
 a day without feeling the discomfiting the
 least ~~or~~ sign of intoxication from them.
 It is of consequence to know this fact, for
 I once lost a student of medicine in a
 typhus fever because his parents would
 not permit him to drink as much wine
 as his disease required, ~~but~~ lost he



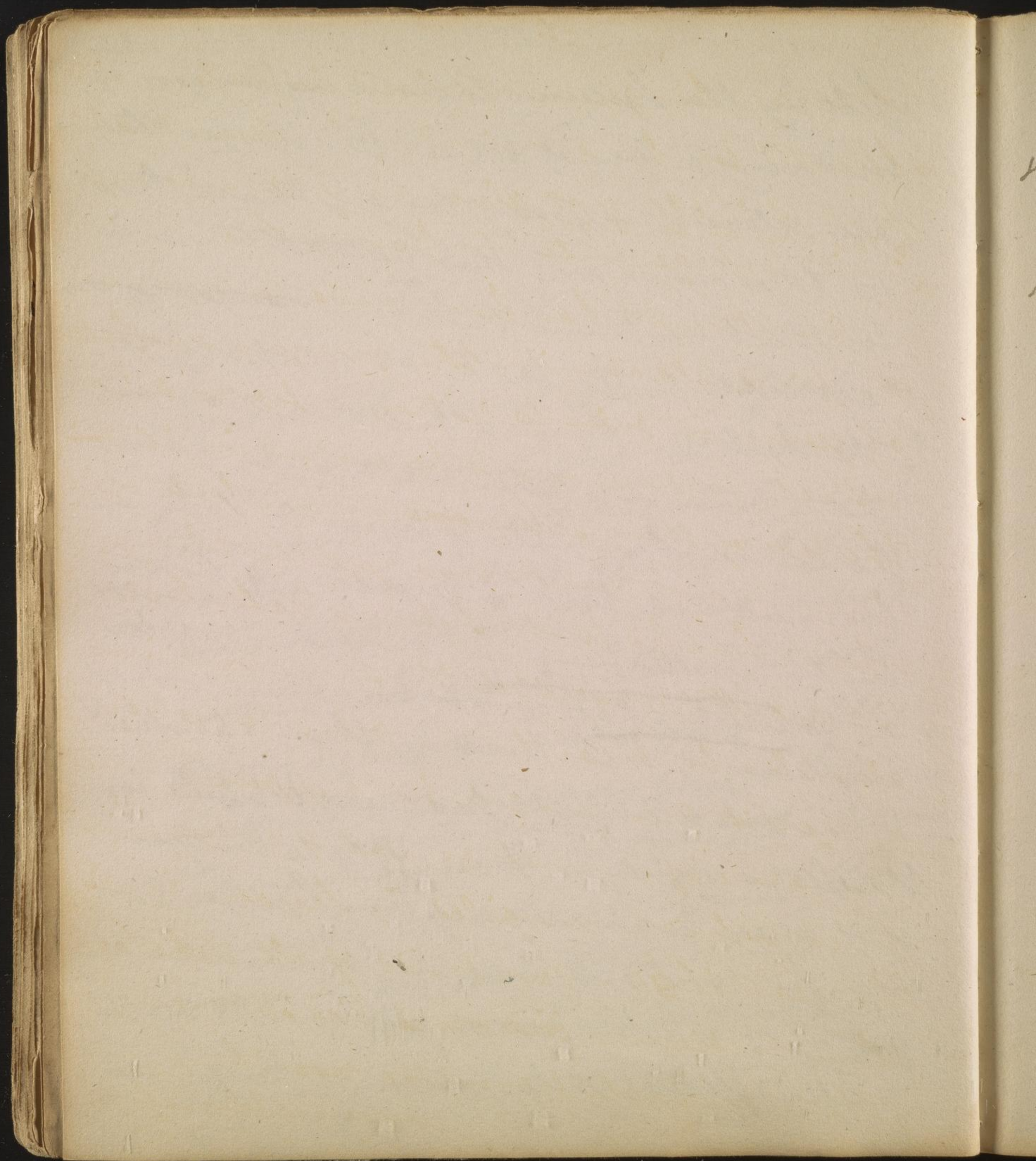
should pass into Acidity in a state of in-
-toxication

2 Of the malt liquors Porter should be preferred. Its bitterness disposes the stomach to retain it, and as it is kept longer before it is sold than any other malt liquor, it is not so liable to be decomposed in the stomach. From one to three bottles of it may be taken in a day according to the state of the System.

3 Distilled spirits ~~may~~ be given to persons who have been in the habit of using them when in health, for their systems will not feel the more feeble Stimulus of wine and Porter. There are cases in which they are necessary to the persons who have been habitually temperate. They are most useful, where a sudden effect is required. They are indicated likewise after wine and porter have ~~lost their~~ cease to be

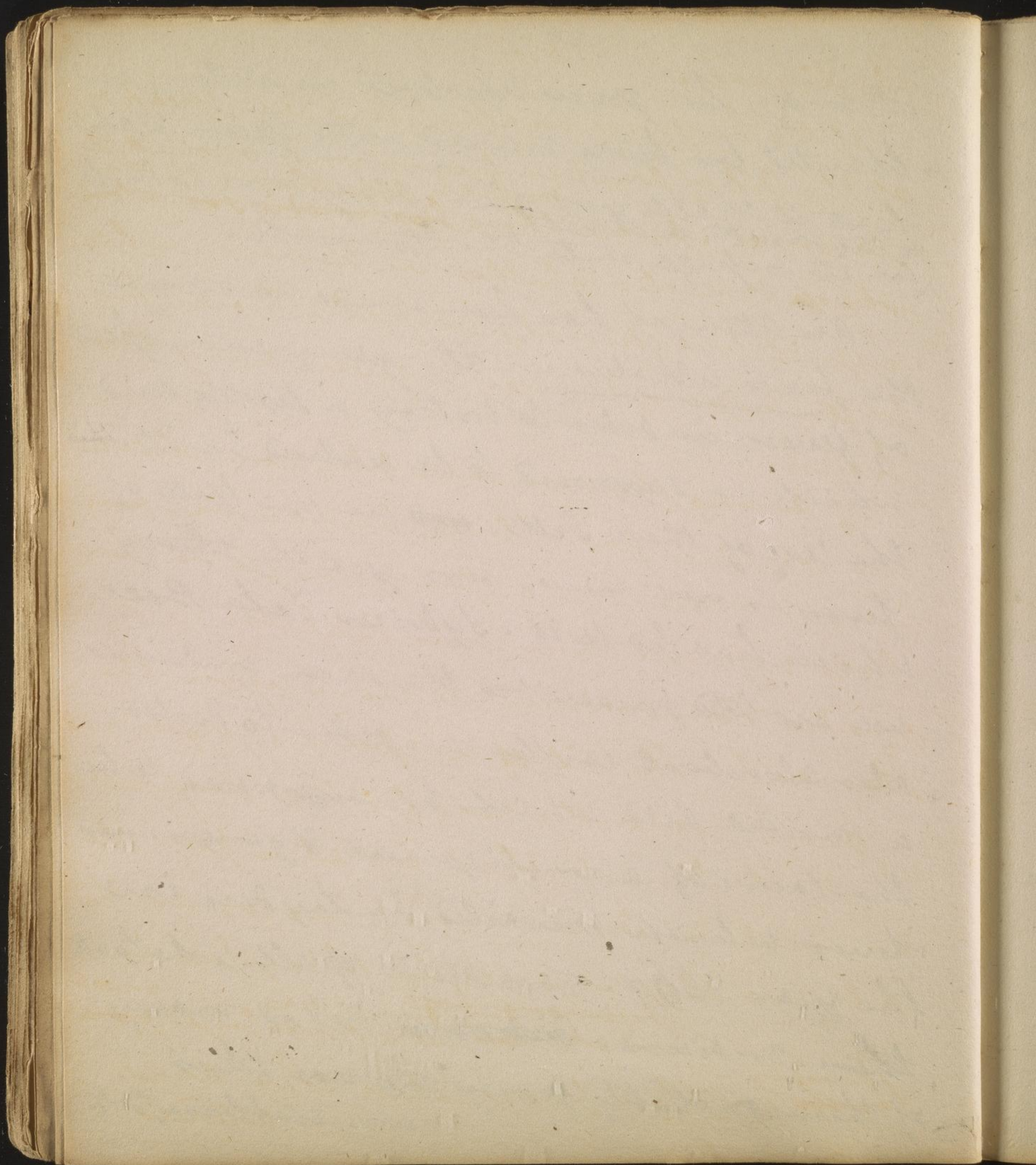
A person took Spirit & Wine of each a
Quart in one night with an equally
favourable issue to the disease. So much
was the sense of taste affected in this
fever that the Spirit was as insipid
upon the tongue as Water. In cases
where debilitation was inoperable,
the Spirit and Wine were poured by
compulsion ^{down the throat} into the stomach. It was
remarked that Brandy opened thirst
more than any other drink. It
acted by its stimulus - diffusing morbid ex-
-citement from the fœces, to every part
of the body.

thus
 felt by the System. There is no Danger of
 producing a loss of Ardent Spirits, for they
 are seldom necessary longer than two
 or three days, and this ~~is not~~ ^{at} time is
 too short for them to become ~~necessary~~ ^{agreeable} to
 the taste, or necessary to
 the System. From a quart to two quarts
 have often been taken in twenty four
 hours in these States of fever. A lady in
 Connecticut took a quart in 8 hours
 in the Spotted fever in the year 1809, ~~the~~ ^{with}
~~a quart of wine & a half of Opium~~ Other cordial
~~medicines~~ ^{in our sight} & was cured by them. Another
 4. The Volatile Alkali has great Virtues in
 these States of fever. From five to ten grains
 of it may be given every two hours. It
 may be conveyed into the Stomach in the
 form of a bolus, or of pills mixed with
 a little flour, or Conserves of Roses, or



it may be given dissolved in water, and
 is blunted by being mixed with Gum Mastic
 that it shall not give any uneasiness
 to the ^{mouth or throat} in its passage into the stomach.

An attempt has been made to remove
 the fixed Alkalies in the gangrenous state
 of fever, in order to destroy a septic acid
 which is supposed to be evolved in it. This
 the use of these Salts, ~~and~~ in this state of
 fever is not new, nor yet the theory
 which has led to it. Sybirus De la Boe
 we are told prescribed the same medicines
 also absorbent earths in order to destroy
 a morbid acid which he supposed to be
 the cause of a malignant & gangrenous
 fever which prevailed in Lyons in
 the year 1669. Two thirds of all who took
 these medicines ~~died~~ died, & many
 of them probably from the ~~use~~ their
 unsuitableness to



the disease.

Of the Empiricumatic Oils I can speak only of the Oil of Anise from my own ^{partial} experience. In all these ~~spasmodic symptoms~~ ^{affections of the} ~~muscles~~ ^{partial} whether in tremors, or ~~cramps~~ ^{cramps}, it is extremely useful. From five to ten drops of it may be given every two hours.

Of ~~among~~ the aromatic Oils, those which are obtained from Cloves, Cinnamon, and Aniseed & mint are often employed in these states of fever. Their principal use is to make other medicines lie easily upon the stomach. The Oil of or essence of peppermint is most frequently used for this purpose.

Of the Stimuli that are taken from the Animal Kingdom Musk & Castor are the only two that now retain their place in medicine. ^{though the} Musk has ^{most} ~~been~~ ^{generally} ~~used~~ ^{been} ~~used~~ ^{used} in those fevers when they are attended

^{expensive}
✓ Thus object to its being offensive to the
senses of smell & taste, to its being expensive
and often adulterated. I do not deny its being
occasionally given with success, But I have
observed it is in the ~~store of~~ ^{store of} ~~disorders~~ ^{disorders} for
disorders, or symptoms of disorders in which
all the common stimulants of the system
have been previously given without success.
In this case it acts, ^{by its novelty and 2^d} by the sublimity of its
stimulus, being exactly proportioned to the
tender remains of excitability of the system.
Its efficacy therefore depends ~~up~~ not upon its strength
but its weakness as a stimulus. It is this way [†]
✓ upon the glands in increasing & lessening
the secretions — upon the

† that subtle remedies prescribed by Quacks &
old women often perform cures of disorders which
have long resisted the most powerful stimu-
-lating remedies.

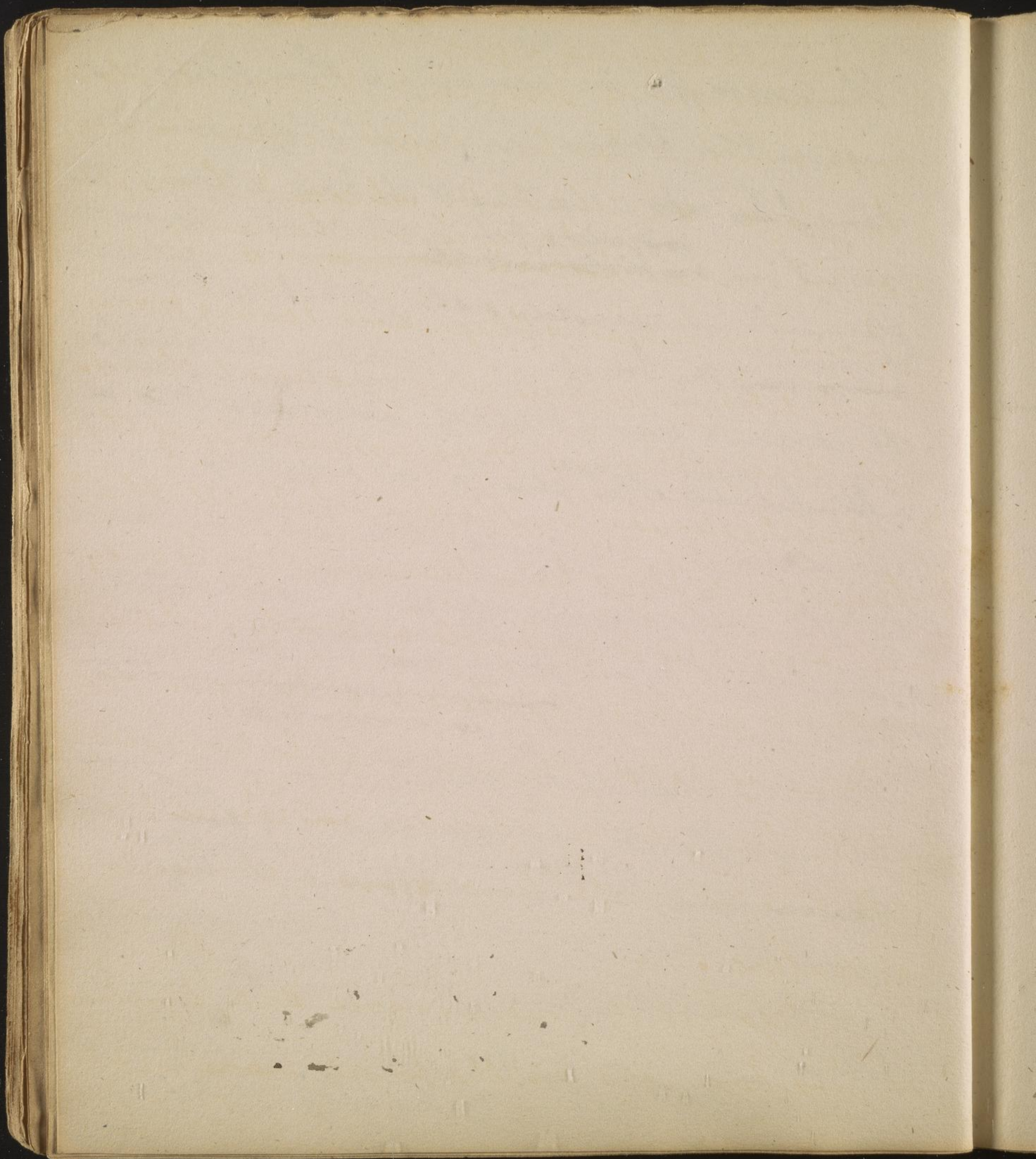
with symptoms of disease in the muscular system, but as ~~the~~ ^{is an} ~~expensive~~ ~~drastic~~ medicine, offensive to its ~~bad~~ ^{very expensive} smell & taste to most patients, & very apt to be adulterated, and as its effects ~~are~~ when pure and taken in the largest doses are by no means generally useful, I think it may be laid aside, and the oil of amber or the Tincture or watery solution of Apsatida be substituted for it. ✓ While I

Opium as a stimulant is what the Roman poet calls his hero, "ipse Agmen." a host of itself. ~~For~~ In clasping Opium among the stimulating medicines I am aware, ^{that} of Disent from Dr Cullen and some other physicians who have considered it as a sedative, but its effects upon the pulse in increasing its frequency & ^{upon the lymphatics in increasing & lifting} ~~upon the~~ ^{relieving} ~~its~~ ^{their} ~~action~~ ^{action} - in giving ~~them~~ ^{relieving} ~~tone~~ ^{pain} - upon

✓ which act upon but one, or seldom upon
more than two or three of them.

the muscles in removing their tremors,
 upon the brain in preventing, or indu-
 -cing sleep ~~also~~ according to its dose - upon the
 mind in ~~inducing~~ ^{inspiring} exhilarating it - upon the
 stomach in removing the flatulency, ~~which~~
 & upon ~~the~~ the bowels in checking the diarrhoea
 that arise from debility, ~~and upon the~~ ^{and upon the} it to be
 skin producing ~~or~~ sweats, or exciting a gene-
 -ral itching, all prove it to be a stimulant.

In thus acting upon all the different systems
 of the body it differs from ~~most~~ all other ^{stimulants} ~~liquors~~,
 for example - Bark ^{and fermented liquors} ~~acts primarily~~ chiefly
 upon the blood vessels; - mercury upon the lymphatic
 -tic and glands, - volatile alkali and ^{other} ~~fermented~~
~~liquors~~ upon the nerves, ^{oil of amber upon the muscles} - fermented liquors
 upon the brain and mind, - bitters upon the
 stomach, and astringents upon the bowels,
 whereas Opium possesses a universal empire
 over all the systems of the body. It differs



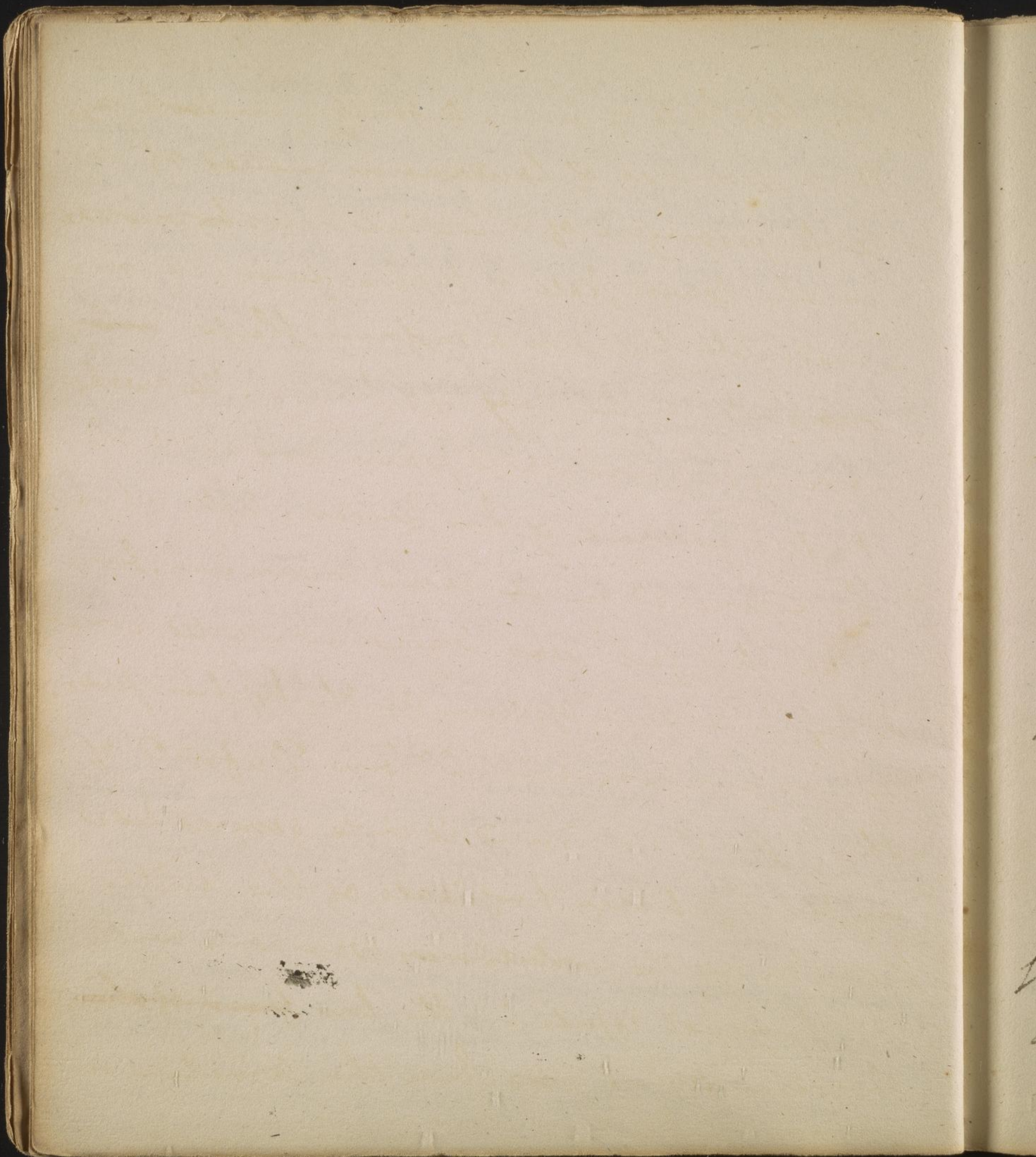
in its extensive effects ³⁰
moreover from several of the narcotic plants
with which it has been classed such as hemlock
hembane & white shade tobacco & hops all
of which act ^{chiefly upon the nerves} ~~but in two ways~~ and
begin in inducing sleep, and easing pain,
and seldom produce any material change
in their ordinary doses upon any of the
other systems. In short - while all the
stimulants that have been mentioned may
be compared to a candle or torch, which
acts in a narrow sphere & only upon the
sense of sight, Opium may be compared
to the sun which diffuses ^{its} ~~and spreads~~ in-
fluences over all ^{the} kingdoms & elements
of nature.

Against its preeminence as a stimulant,
it has been said, distilled spirits have act

V of Gunpowder which would propel an 18
pound ball. this a ~~ball~~ nine inch wall, ~~and~~
if its force were divided, and spent upon
18 grape shot would ~~scarcely~~ ~~some~~ make
but a feeble impression upon it.

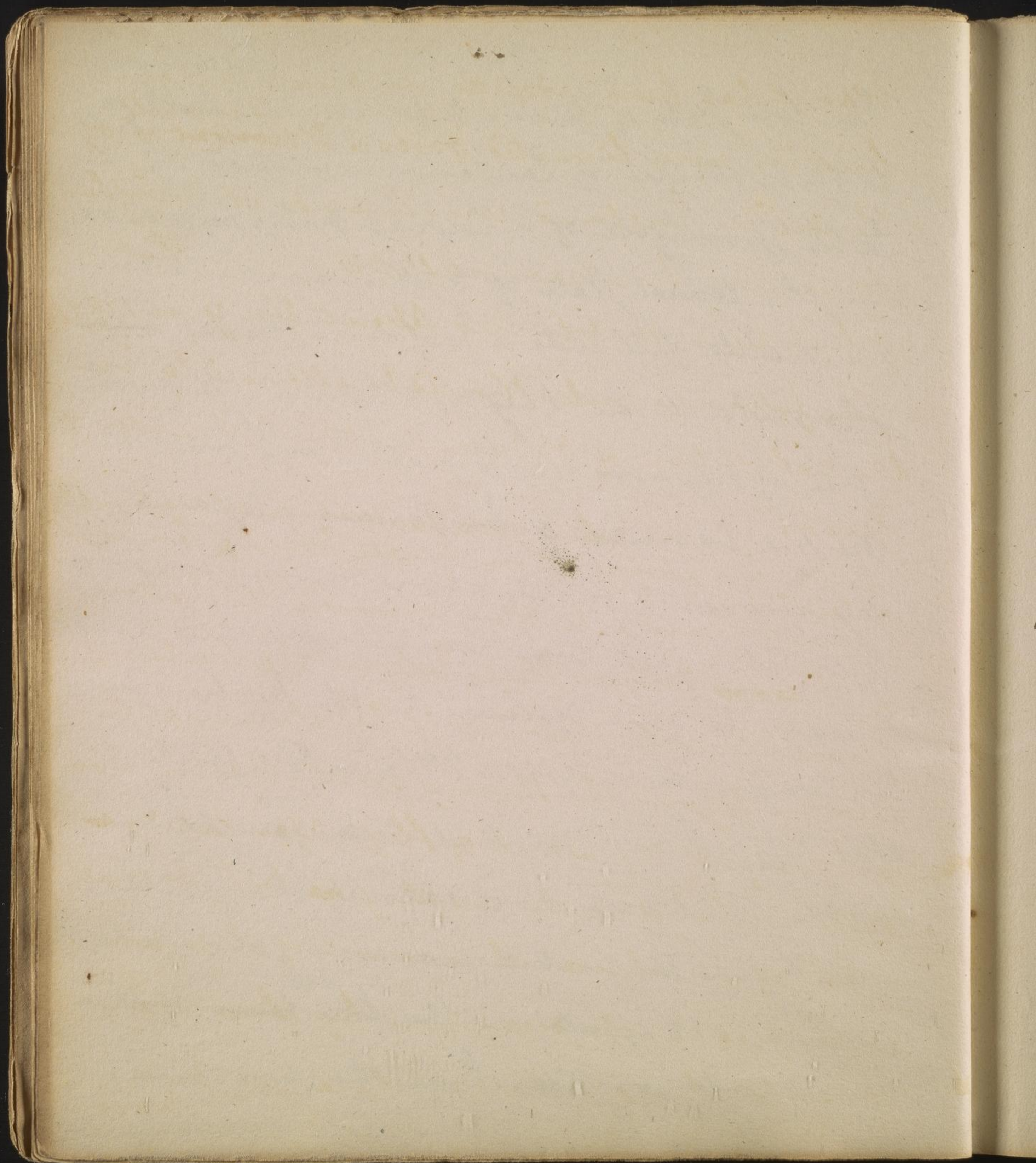
more powerfully upon the Arterial system,
 and that this is evident from greater frequen-
 -cy of pulse being more promptly induced in
 the pulse by a Dose of distilled spirits, than by
 an equal dose of Opium. This may be true,
 but it ^{no} more moves ^{the former} ~~these spirits~~ to excite the
 latter in its ^{their} stimulating power, than the
 greater ^{efficacy} of Bark in causing an intermittent
 than ~~Opium~~ proves it to be ~~an~~ a more
 powerful Stimulant than Opium. Both
 the Spirits and the Bark concentrate nearly
 their whole stimulus upon the blood vessels,
 while Opium ^{divides and} diffuses its stimulus ^{among} ~~throughout~~
 all the systems ^{parts} of the body. — Thus the same quantity ✓

An accident which happened in the ^{an account}
~~State of Delaware~~ State of Maryland, and of which
 I first heard about the year 1770 first sugges-
 -ted to me the idea of giving Opium in



by mistake

the low state of fever. A gentleman took ~~a~~
 table spoonful of Laudanum instead of a
 table spoonful of a Cordial Dilep ~~by mistake~~,
 in the lowest state of typhus fever. He im-
 mediately fell into a profound sleep, ⁱⁿ and
~~stays~~ which he lay 48 hours. He awoke
 free of tremors - and pain and with the
 perfect exercise of his senses. After which
 he recovered in the rapid manner. Soon
 after this fact was communicated to me
 I began to give Opium in the typhus fever.
 In conjunction with Dr Saml Duffield of
 this city, I introduced it into general use
 in the military hospitals of the United
 States during the revolutionary war, and with
 the happiest effects in the low ~~fever~~ of the
 hospital fever. ~~Since~~ Since the American



Was it has been adopted in Great Britain,
 but in very limited doses. ^{Campbell} ~~Defended~~ of
 Kendal in England commends it in high
 terms in his pamphlet upon the
 opium published about the year 1787.

The following rules should be attended to in
 the exhibition of Opium in the low states of
 fever.

1 Begin by giving it in small doses, ^{where you suspect great accumulation?} ~~ten drops~~
^{excitability,} of Laudanum will often compose the system,
 and ~~also~~ induce sleep when a greater
 quantity will prevent it by elevating the
 system beyond the sleeping point. Patients who
 complain of the want of sleep after taking a
 dose of it, ^{the first time} often tell us they ~~too~~ took too small
 a dose of it, whereas their want of sleep ^{is} ~~is~~
 more frequently occasioned by their taking
 it in too large a dose. There are two
 ways

V Cases in which from faintness, or any other cause sudden debility is induced upon the system. The excitability is thus accumulated, and small doses of Laudanum produce great effects. Dr Stedman relates a case in the Medical essays of Edin² in which a common dose of Laudanum induced death in a man who had been suddenly debilitated by taking an emetic.

of inducing Sleep by means of Opium. 1 By
 giving exactly as much of it as will raise the
 system to the sleeping point. 2 By giving it in
 so large a quantity as to depress the system to
 the sleeping point by its excess of stimulus. The
 latter is always unsafe, ~~as~~ ^{determinates} as it ~~disposes~~ the
 blood too powerful to the brain where it some-
 times ~~creates~~ disposes to effusion and death.
 By attending to this giving Laudanum in
 the former way, I have often induced easy
 Sleep by giving from five to ten drops of it,
 when I am sure from 50 to 200 would not
 have induced it, or if they had, it would have
 been at the expense of the evils I have menti-
 oned. This rule applies with equal force to those
 2 The dose of Opium should be increased with
 the progress of debility. ~~Forwards~~ I have often
 prescribed from two to ten grains ^{of it in the course of} a day in the

✓ Service when it induces sleep, and this
sleep does most good when it continues
6 or 8 hours, so as completely to lock
up excitability, and thus prevent its
waste in useless sensations & motions. ~~Take~~
~~care only in giving it to induce protracted~~
~~& deep sleep that there be no previous~~
~~tendency to congestion or effusion in~~
~~the brain~~ ~~for~~ I have said sleep is a disease;
that ~~it~~ is, a healthy apoplexy. I have taken notice of
the salutary effects of the disease of thirst in con-
-tracting morbid excitement in the fauces & thus
depriving more vital parts of the body from it in
the same manner that a venereal angina
produces its salutary effects. Now why may =

the typhus fever, and from two to six grains
of it at bedtime. In the Scarlet fever, ^{in connection in} a grain
1869, and an half of it were given ~~in~~ every

hour for eight hours with great advantage.
There is no limiting the dose of this medicine,
when given at first in moderate quantities.

Dr Bouquet of Paris took an hundred grains
of it in the day for a Colic with safety, and
relief to his complaint. ^{When it is} If ~~it can be~~ given
without sleep, I believe it is because it is
taken in too small doses. It does most

3 It should be given during the day in small
doses, as well as in large doses at night. In
cases of extreme weakness, the pulse should
be watched during sleep. If it flag, the
patient should be waked, and a fresh dose
of Camphor should be given. From
the ~~worst~~ neglect of this ~~practical~~ practice,
many patients die in their sleep in the

= Sleep he made to perform the same salutary purpose by abstracting ^{suble} morbid actions from every part of the body and concentrating them in the brain? In this way as I shall say hereafter, nature often brings on the crisis of a low typhus fever, and in this way, we observe the generally carries off the disease of drunkenness. The sleep in both these

6 It should be given in some cases is from 12 to 24, or 30 hours. Recollect what was said in our Therapeutics, that we are too tender of the brain in translating disease from one part of the body to another. Its retaining its ~~original~~ healthy Organization ^{unimpaired} ~~under the repeated attacks of epilepsy for~~ ^{permeation of head with} for 20, or 30 years, - ~~under great~~ ^{protracted} ~~attacks~~ ^{and of Drunkenness} during a long life, show that that ~~weak~~ the brain is a much harder viscus that has generally been supposed. Take care only in giving Opium to induce deep or protracted sleep, that there be no previous tendency to congestion or effusion of water in the brain. It will =

typhus fever.

4 ~~It Opium~~ should be laid aside
~~the preparations of Opium~~ for a day or
 two when the system becomes insensible to
 its action, and other Stimulants used in its
 stead.

5 When the Opium ceases to act through the
 medium of the stomach in common doses,
 or when it produces pain in the head, or
 sickness at stomach give it by way of
 Glyster. Remember the fact of buff-
 losing its effect upon one nostril, and
 existing ^{and pleasure} sneezing when applied to the other.
 A Double ^{Dose} ~~the quantity~~ of Laudanum will
 be necessary to act upon the system when
 it injected into the bowels. ~~6th~~

6th
 Exactly, in proportion as the patient recovers,
 and the excitability of the system is restored, the
 dose of Laudanum should be lessened in the same
 ratio that it was increased with the decay, or
 want of excitability.

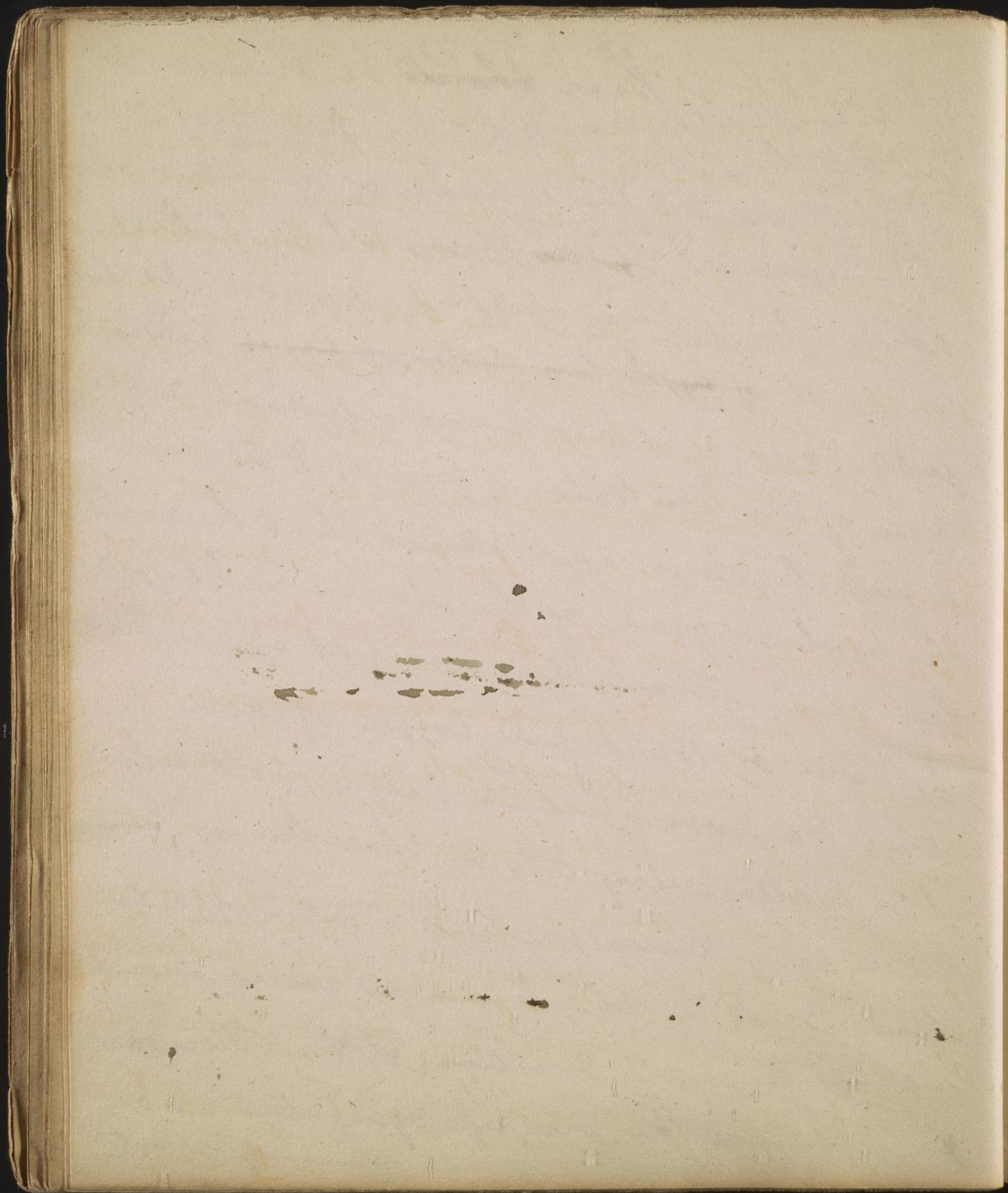
generally be safe where there has been
little or no previous delirium, or headache,
and where the bloodvessels have been
~~very~~ ~~as~~ ~~fully~~ sufficiently emptied of their
blood by previous bleeding, or the abstraction
of Aliment by a long Duration of the
fever. return to p. 35.

Other may be used after Opium loses its effect. It is a ~~great~~ prompt & powerful Stimulant, but so volatile that its action soon passes out of the system. From 30 to 60 Drops of it may be taken every hour in any of the common Drinks of a patient.

Bark has many Advantages in these States of fever. It is both a diffusible & durable Stimulant. Begin with the Infusion unless you have been called late in the disease, and afterwards give ^{an ounce} the Bark ~~mixed with~~ ^{an ounce} Theriacal Tincture ~~& Laudanum~~ An ounce & a half, & Laudanum fifty Drops - mint water an Ounce & common water six Ounces, mixed together in the form of a Julep. The dose should be a table Spoonful of it every hour and increased, and stopped with the increase or decay of excitability. The

✓ The Spanish physicians have lately
told us that in the malignant state of
the yellow fever at Cadix ~~or~~ that at
quantity of ~~a~~ Bach was taken daily,
& that a less quantity was of no
service.

Quantity of Bark ~~should~~ be increased
 until the patient takes six ounces of it in
 a day, provided the increase of debility makes
 it necessary. ~~If the Bark~~ While I thus
 advise large doses of Bark, I must add, there
 are cases of ~~typhoid~~ low states of fever in which
 full doses of it are more effectual in the
 cure of the low states of fever. Dr Asellini
 a French physician tells us that he cured
 the typhoid grade of the plague in Egypt
 by giving two tablespoonful of an in-
 fusion of Bark and Coffee of each a
 large teaspoonful ^{infused} in half a pint of boil-
 ing water every two or three hours. Even
 Bitters sometimes produce greater effects
 than Bark in the low and gangrenous
 states of fever. A decoction of the willow bark
 once checked the progress of a fatal vira-
 -lignant

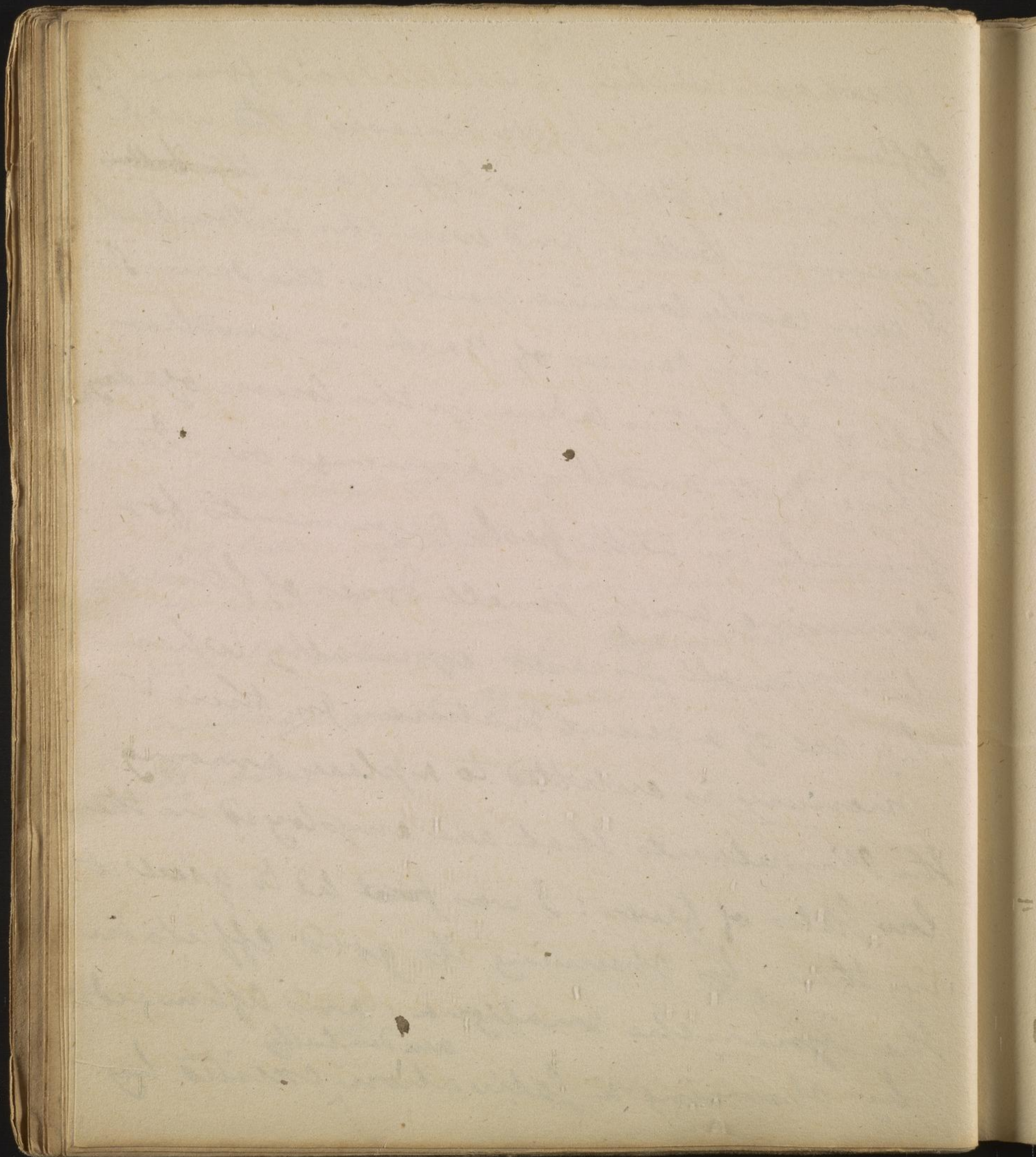


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fever at the Illinois country After the
 largest doses of Bark had been given in it
 to no purpose. The success of these opposite
 modes of practice may be ascertained for in
 the following manner. In the low ^{or} prostrate,
 or gangrenous fever the system is in one
 of the three following states. 1 a good deal
 excited, ^{with} but little excitability, 2 nd feebly
 excited, ^{and feebly} ~~and feebly~~ with excitable. Now in
 both these states of the system six ounces of
 Bark taken in the course of four and
 twenty hours, ~~I can easily convince~~ would
 produce powerful & salutary effects by
 overcoming morbid action ^{by} excitement
 wherever it existed, and rousing dormant
 excitability and converting it into healthy
 excitement. ^{with the feeble remains of} ~~existing excitability~~ ^{instantly} ~~is just~~
 excitement. But 3rd in those cases in
 which there was weak excitement &

V latter stages ~~it is~~ or when excitatⁿ
has been expended by protracted remote
or exciting causes, powerful stimuli
will be not only safe, but indispensably
necessary. Weak stimuli in these cases
do harm.

Great excitability, (which I said formerly
 often existed in febrile diseases) the weak
 infusion of Bark and Coffee, and ~~the~~ ^{the} ~~Willow~~
 common Bitters, and even the Willow bark
 I can easily conceive would do the same Ser-
 -vice as six ounces of Bark in another
 state of the system taken in the course of a day.
 These facts and the reasonings on them,
 furnish us with fresh arguments for
 beginning with small doses of stimu-
 -lants in all ^{weak} diseases, especially when
 they are of a recent nature; In their
Mercury is entitled to a place among
 the Stimulants that are employed in the
 low states of fever. I was ~~first~~ led to give it
 in them, by observing its good effects in
 the Cyanische Maligna, and afterwards
 by observing a ^{accidentally} salivation, excited by



41
the application of a little mercurial
ointment to the side in a typhus fever,
instantly to remove the fever. I have
often employed ^{it} since and with great
advantage. Even where it does not affect
the mouth, it does service as a general
stimulant. When I first gave this no-
ble medicine in fevers such as I am de-
scribing, I did not know that it had
been in general use in other countries.
In the same year and nearly at the
same time of the year it was given
by Dr Wade in the West Indies, Dr Chris-
toper in the West Indies and myself in
this city ~~by a~~ ^{without any} ~~without~~ consent, and
without even the knowledge of each
other's names. In the course of my

✓ Sir Robert Wilson speaks in high terms
of the efficacy of this remedy in the
plague which affected the British
Soldiers in Egypt.

reading I have since discovered that it
 was used as a liologogue in fevers in
 Italy in the year 1739, and in other
 parts of Europe afterwards for the same
 purpose. It was because it was given
 empirically, that it fell into disuse,
 for when given before the system is reduc-
 ed, it is either useless or hurtful. In
 the yellow fever of 1798 which in some
 instances forbade bleeding, a salivation was
 always useful, and it is remarkable it
 was most easily excited in such cases.
 I have never heard of ~~any~~ an instance
 of its producing mortification in the
 mouth or throat when it has been given
 in a reduced ^{that is a} prostrate or typhus
 state of the system. The smell of mer-
 curial ointment is sometimes offensive

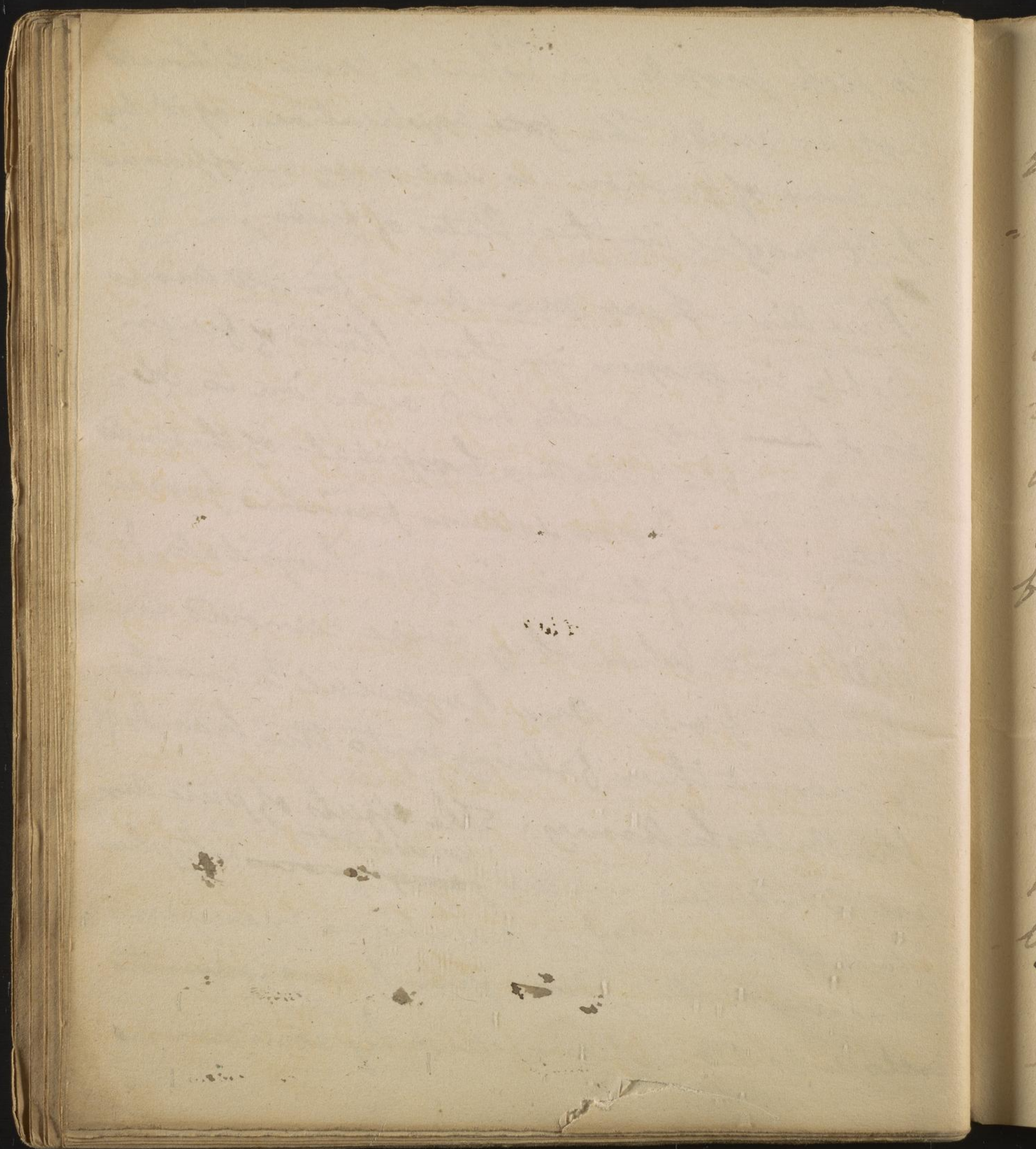
~~Stimulating~~
~~The Remedies which are proper to act upon~~
~~the whole system thro' the medium of the nose~~
~~are Aromatic Spirits - Other - Ammoniac, in-~~
~~-haled, or thrust up the nose by means of~~
~~a feather.~~

~~The remedies which act most powerfully~~
~~upon the system through the medium of~~
~~the bowels are Bark - Laudanum - Wine~~
~~Aromatic Spirits - Turpentine & Large Quan-~~
~~-tities of water to large as to act by the~~
~~stimulus of distension.~~

43.

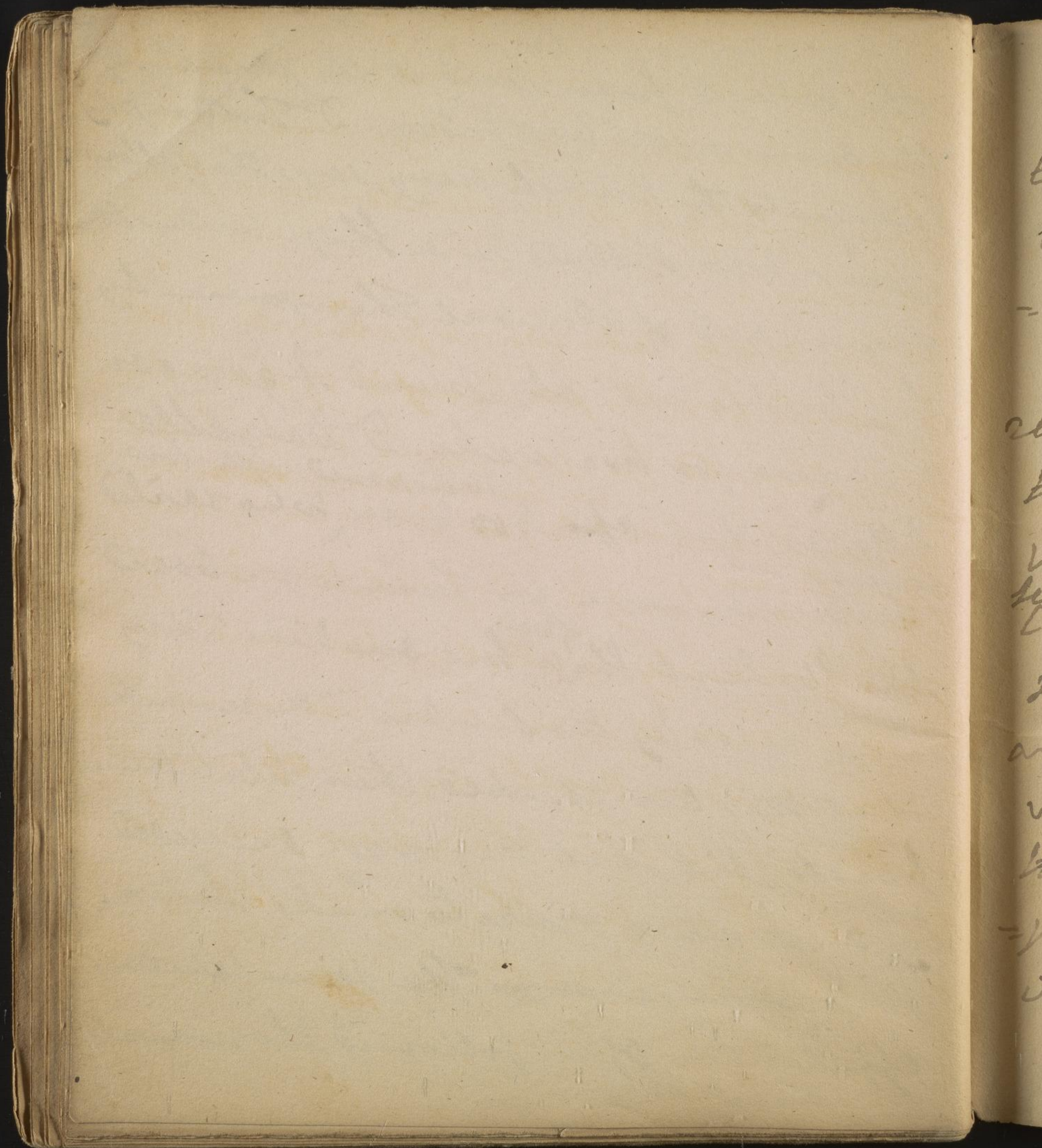
to sick people, in which cases it should not be used. The ~~for~~ application of it by means of friction, is not only inoffensive, but useful in these states of fever.

Pure Air - I say pure air - for cold air is highly improper in these states of fever, as I have frequently had occasion to observe in the military hospitals of the United States. Many ^{of} our soldiers perished from the coldness of the air in our hospitals, & still more when they were removed in winter from one hospital to another to prevent their falling into the hands of the British Army. The effects of pure air are wonderful in the ~~general~~ ^{prostrate} typhus states of fever. Dr Lind mentions many instances of the yellow fever being converted into a mild intermittent by removing



the patients from land to the pure air of
 the ocean in the West Indies. Dr. Trotter-phys.
 -ician to the British Navy says, the yellow
 fever was subdued in a ship under the
 command of Admiral Thompson by
 her having a sickly Island, & going on
 a Cruise for two weeks. Dr. Darrell
 tells us that ^{indisposed with low} 400 men who sailed
 from Cayenne for ^{of war} ~~Texas~~ on board
 the Elephant ship, but one died. They
 were cured by the Sea Air. He remarks
 that this air checked their debilitating
 sweats, but that they were succeeded
 by a constant desire to make water.

~~Indisposed~~ The same salutary
 effects have often followed the removal



45
of patients ill with low fever from ~~the~~^a
~~town~~ City to a Country, and from a
low to high & mountainous situ-
-ations.

In every case where patients are
removed for the ~~the~~ benefit of pure air,
they should be conveyed in a boat
or in an arm ~~chair~~ or
when practicable, for in a very easy
bed or chair,
Carriage. Long & violent motion of
said formerly is always followed with
an increase of fever, and sometimes
with sudden death, as we ~~at~~ now be
then witnessed in the yellow fever hos-
-pital upon the shore of the Schuylkill
in the year 1798.

